











## IMPORTED PAPER AND PULP

### NEWSPRINT IN ROLLS OR SHEETS

From Stock in New York, or Direct From Mill

**E. C. MELBY**

21 East 40th St.

New York City

*Representing*

Drammen Paper Mills, Drammen, Norway  
G. A. Svensen Trading Co., Christiania, Norway

#### Offices

London, England  
Buenos Aires, Argentina  
Havana, Cuba  
Santiago, Chile  
Cape Town, South Africa  
Johannesburg, South Africa



#### Offices

Bombay, India  
Sydney, Australia  
Melbourne, Australia  
Rio de Janeiro, Brazil  
Shanghai, China  
San Francisco, Cal.

Exporters and Importers of

### PAPER and PULP

**PARSONS & WHITEMORE, Inc.**

299 Broadway

New York

## KNOX WOOLEN CO.

MANUFACTURERS OF

### "EXCELSIOR"

*Seamless Felts for  
fast running*

FELTS AND JACKETS  
FOR EVERY GRADE OF PAPER

*Satin style Felts  
for fine finish*

1863

CAMDEN, MAINE

1921

## CASEIN

**Standard Quality  
Lowest Prices**

**The Casein Manufacturing  
Company**

17 Park Row

New York



FORT HOWARD PRODUCTS

**THREE QUALITY LINES**  
NAPKINS—TOWELS—TOILETS

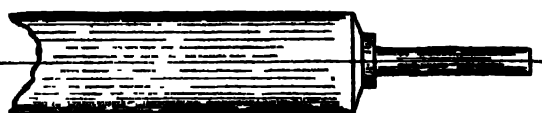
Genuine Crepe Nap-  
kins Flat and Folded  
Toilet Papers—All  
Grades Genuine  
Crepe Toilets—Our  
Specialty.

Paper Towels.

**Fort Howard Paper Co.**

GREEN BAY, WIS.

**R D. Skinner & Co Inc**  
70 East 45th Street  
New York City



**WOONSOCKET, R. I.**

**Sulphur Deposit and Plant, Matagorda  
County, Texas**

# NORWOOD

## PAPER FINISHING MACHINERY

**SUPER CALENDERS  
PLATERS**

The Standard for Over 30 Years

*Write for Information.*

**NORWOOD ENGINEERING CO.**  
Florence, Mass., U. S. A.

# COLORS

*Calender  
Beater  
Coating*



*For all grades of stock*

PROMPT LABORATORY SERVICE  
**SANDOZ CHEMICAL WORKS**  
INCORPORATED  
238-240 Water St., New York

OUR SOURCE OF SUPPLY IS  
**SANDOZ CHEMICAL WORKS**  
Basle, Switzerland

## BLEACHED Sulphite Fibre

*of the highest grade*

*Uniform quality, prompt ship-  
ments and market prices. Daily  
capacity of 600 air-dry tons.*

**BROWN COMPANY**

*Founded 1852*

**PORTLAND MAINE**

*Mills at Bethel, New Hampshire*

NEW YORK CITY  
West North Bldg

CHICAGO  
110 So. Dearborn St

# PAPER MAKERS' ALUM

(Both Commercial and Free from Iron)

Casein, Satin White, English China Clay,  
Crystal Boro Phosphate  
(A Solvent for Casein)

**THE KALBFLEISCH  
CORPORATION**

31 UNION SQ. WEST. NEW YORK, N. Y.



## Bayless Manufacturing Corporation

SALES OFFICE: 527 FIFTH AVENUE, NEW YORK.  
PULP AND PAPER MILLS AT AUSTIN, PA.



HIGHEST  
QUALITY  
SULPHITE  
WRAPPING  
PAPERS

### The Pulp and Paper Trading Co.

21 East 40th Street New York City

**DEALERS IN DOMESTIC CHEMICAL AND  
MECHANICAL PULPS AND PAPER**

AGENTS FOR

J. & J. Rogers Company, Ausable Forks, N. Y.

Ware Coated Paper Company, Ware, Mass.

Procter & Gamble Distributing Co.

Mills at Augusta, Georgia, and Memphis, Tenn.

Canadian Kraft Limited, Three Rivers, Canada

Dealers in Wayagamack Kraft Pulp

EASTERN AGENTS of Sulphite Pulp. Made by  
Port Huron Sulphite & Paper Co., Port Huron, Mich.

### J. ANDERSEN & CO.

FREDERICK BERTUCH, SPECIAL PARTNER

21 East 40th Street, New York City

### Importers of Chemical Pulps

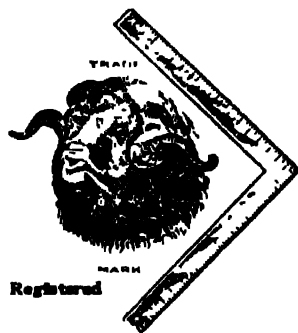
**BLEACHED AND UNBLEACHED**

Agents for Kellner Partington Paper Pulp Co., Ltd.  
Sarpsborg, Norway; Forsbaga, and Edavilla, Sweden;  
Bergvik and Ala Nya Aktiebolag, Soderhamn, Sweden

Scandinavian Export Agents

TEXAS GULF SULPHUR CO., TEXAS CITY, TEXAS

### THE WATERBURY FELT CO.



### FELTS and JACKETS

For Every Grade of Paper and Pulp

Correspondence and Orders  
Solicited

Manufactured at

SKANEATELES FALLS  
New York

JAMES ROSENBERG, Pres.

L. W. BOWMALL, Vice Pres.

### AMERICAN WOODPULP CORPORATION

FOREIGN AND DOMESTIC

**CHEMICAL and MECHANICAL  
WOODPULPS**

*Rags, New Cuttings, Bagging, Etc.*

*Chemicals of All Descriptions*

New York—347 Madison Ave.

BRANCHES:  
Stockholm—Sweden  
Helsingfors—Finland

Holyoke—J. B. Woodruff, Inc.  
Kalamazoo—F. D. Haskell  
Dayton—R. R. Reed

### FORGE LAP-WELDED

SOFT STEEL

## DIGESTERS

ALL SEAMS LAP-WELDED

**AMERICAN WELDING COMPANY**

CARBONDALE, PA.

VERTICAL  
SEAMS  
HEATED WITH  
FURNACES  
AND WELDED  
WITH  
HYDRAULIC  
POWER

CIRCUMFERENCE  
TIAL SEAMS  
HEATED WITH  
FURNACES  
AND HAMMER  
WELDED

We offer a full line of

# COLOURS

and furnish precise directions on application for

## Beater Dyeing, Staining and Coating

Half a century's experience enables us to furnish goods answering requirements  
and to give reliable service

### THE HELLER & MERZ CO.

BOSTON

CHICAGO

NEW YORK

PHILADELPHIA

SPRINGFIELD, MASS.

#### "Papers made in the Adirondacks"

## 1919 PAPERS

#### EQUIPMENT--

92" trim Cylinder machine for Heavy Papers .010 to .025    56" trim Fourdrinier machine for Medium Weight Papers  
65" trim Harper machine for Light Weight Papers    40" Plater for "special surfacing"  
40" Roll Embossing machine

We are equipped to make the following specialties:

Drawing  
Railroad Writing  
Bogus Bristol  
Photo Mounts (Solid and Filled)  
Cover Paper  
Kraft  
Anti Tarnish  
Macaroni  
News

Chocolate Layer Board  
Cheviot Paper  
Coating  
Ticket Bristol  
Album Paper  
Black Papers  
Filled Calendar Back  
Solid Calendar Back

Colored Poster  
Colored Sulphite  
Box Cover  
Plated and Embossed Papers  
Match Box Paper  
Special Standard Cover (antique  
finish only)  
Pattern Paper  
Manila

White and Colored Papers for Special Requirements

We also will stock two cover lines—one pattern paper line— one box cover line.

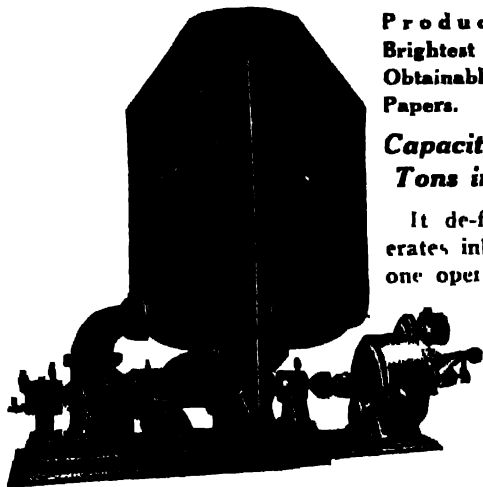
## NUERA PAPER CO., Inc.

General Offices and Mill: Hadley, New York

W. J. Blackley  
General Sales Manager

# WINESTOCK

DE-FIBERING AND DE-INKING PROCESS  
PATENTED



Produces Strongest,  
Brightest and Best Pulp  
Obtainable from Waste  
Papers.

Capacity—12 to 15  
Tons in 24 Hours

It de-fibers and lib-  
erates ink and color in  
one operation. It sep-  
arates ink and color  
from fibers, instead of  
rubbing, grinding or  
kneading them in.

Height of Machine Over Ail, 12 Feet

**CASTLE, GOTTHEIL & OVERTON**

SOLE SELLING AGENTS IN THE UNITED STATES

200 Fifth Ave. Building

New York, N. Y.

E. D. Jones & Sons Co., Pittsfield, Mass.,  
Builders in the United States  
Waterous Engine Works Co., Ltd., Builders and Selling  
Agents for Canada, Brantford, Canada

Buy "signed"  
valves—with the  
Jenkins Dia-  
mond Mark and  
signature on the  
body

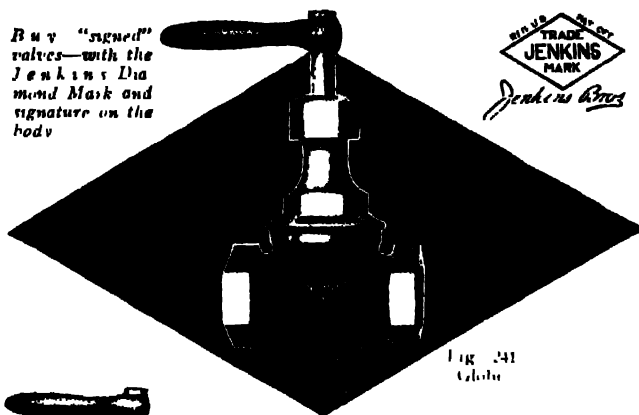


Fig. 241  
Globe



Fig. 243  
Angle

## Quick Opening Valves

Globe and angle types, standard pattern  
suitable for handling pressures of 150  
pounds per sq. in. on 2 1/2 inch water  
Valve opens about quarter the usual  
number of turns. Globes fitted with  
lever handle, but can be furnished with  
hand wheel, desired. Fitted with Jenkins  
Diamond Mark.

Write for literature over where

**JENKINS BROS.**

New York, B. B. Jones, Philadelphia, Chicago,  
Montreal, London, Havana, London

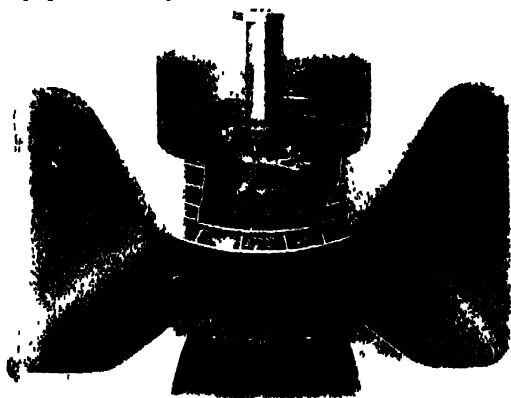
London, London, London, London,  
London, London, London, London

**Jenkins Valves**  
SINCE 1864



## SMITH HYDRAULIC TURBINES

Write Dept. "X" for Bulletin illustrating some of the  
latest and most efficient water power installations in  
the paper industry.



**S. MORGAN SMITH CO.**

York, Pa.

176 Federal St.  
BOSTON

76 W. Monroe St.  
CHICAGO

405 Power Bldg.  
MONTREAL

## APPLETON FELTS

Quality Paper  
Quantity Production

is another way of saying

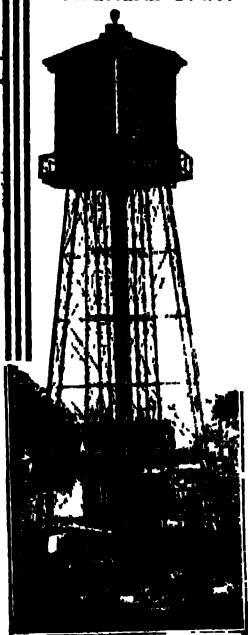
**APPLETON**  
Felts and Jackets

**APPLETON WOOLEN  
MILLS**

APPLETON, WIS.

## Running Water— Always

Every paper mill needs water—plenty of it. Every paper mill can have a bountiful supply of running water at all seasons of the year by installing a Caldwell Structural Tower.



The Caldwell Structural Tower is as dependable, trustworthy and enduring as a tower can be built. When you think of a skyscraper you think of permanence. The Caldwell Structural Tower is built on the same principle—lattice steel construction, the highest type known to engineering science. It's a good, honest, serviceable tower designed by engineers and backed by an experience of over thirty years in building tanks and towers.

**Write for Catalogue**

W. E. CALDWELL CO.  
INCORPORATED  
2040 BROOK ST., LOUISVILLE, KY.

*Caldwell*  
TANKS  
AND  
TOWERS

**Fly Bars**

**Bed Plates**

**Jordan Fillings**

**Knives**

For all makes  
of Machines.

For all classes  
of work.

We can offer a desirable and dependable source of supply.

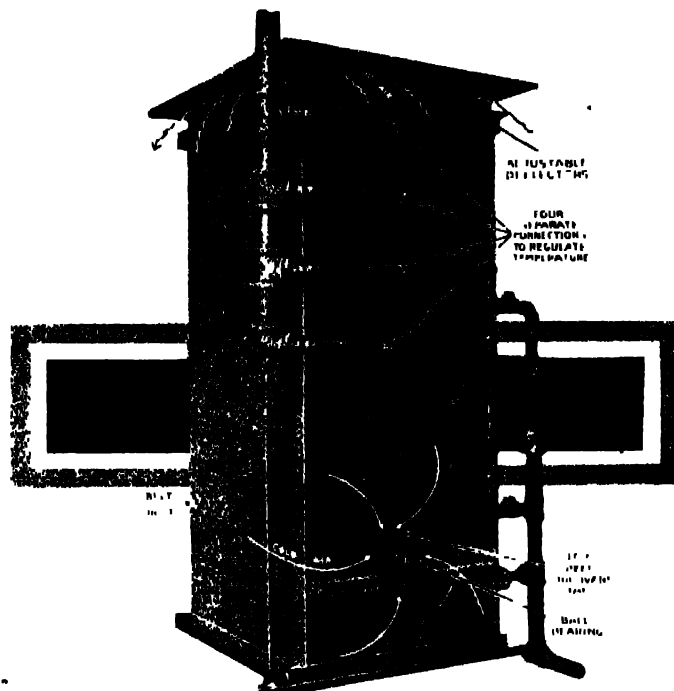
Let us quote on your requirements.

**JOHN W. BOLTON & SONS, Inc.**

Lawrence, Mass.

**High Grade Fly Bars, Bed Plates, Jordan Fillings and Knives.**

## GORDON STEAM UNIT HEATER



### LOWEST COST DRYING HEATING AND VENTILATING

**T**HE marked flexibility of the Gordon Steam Unit Heater accounts for its extremely low operating cost. The unit is quickly adapted to fit requirements.

Each of the 4 cast iron coil banks has its own supply valve so that as many coils as are needed may be used. The Multivane Fan handles more air at lower speeds so that less power is required to move a given volume. The heat may be directed or concentrated where needed, as there are 4 separate outlets—all controllable.

Get the facts and figures on your requirements. Plant officials and their architects and engineers may without obligation "Consult Gordon." Use the convenient coupon. We are headquarters for information on the items listed below.

**ROBERT GORDON, Inc.**

"Climate Makers"  
Specialists in Heating and Ventilating  
Established 1890

638 W. MONROE STREET

CHICAGO, ILL.

Robert Gordon, Inc.  
638 W. Monroe Street, Chicago

Gentlemen: We are interested in the item or items checked below:

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Mechanical Hot Water Heater.  | <input type="checkbox"/> Mechanically Circulated Water Heating. | <input type="checkbox"/> Ventilation-Fan System of Heating. |
| <input type="checkbox"/> Steam Unit Heaters.   | <input type="checkbox"/> Direct Steam Heating.                  | <input type="checkbox"/> Process Piping.                    |
| <input type="checkbox"/> Preliminary survey, and recommendation of best type of heating for our plant based on installation and operating costs. | <input type="checkbox"/> Drying.                                | <input type="checkbox"/> Air Conditioning.                  |

Name \_\_\_\_\_

Address \_\_\_\_\_

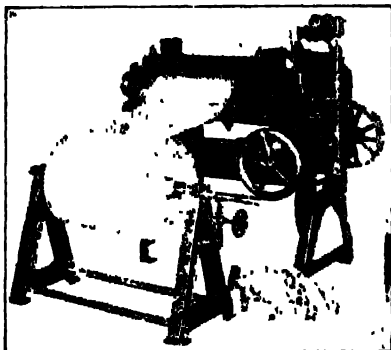
Per \_\_\_\_\_

## Dietz Toilet Paper Machinery

AND LATEST IMPROVED PATENTED

### Automatic Tube Machines

For Making Tubes for Toilet  
Paper Rolls, Paper Towel Rolls



Patented Feb. 22, 1916, May 16, 1920

Toilet Paper Machines for making Toilet Rolls with or without perforations and machines for making Sanitary Crepe Paper Towels, Punch Presses for Sheet Toilet Paper, Drop Roll Sitters, Slitting and Rewinding Machines, Side and Center Seam Merchandise Envelope Machines, Photo Mount Beveling Machines, Candy Bag Machines, Punch Presses for Playing Cards, Rotary Card Cutting and Collating Machines, Etc.

### DIETZ MACHINE WORKS

126-128 Fountain Street

PHILADELPHIA, PA.

Corner Waterloo St., Below Diamond St., Bet Front and 2d Sts

Capable of producing 3,600

### Toilet Tubes

per hour direct from roll

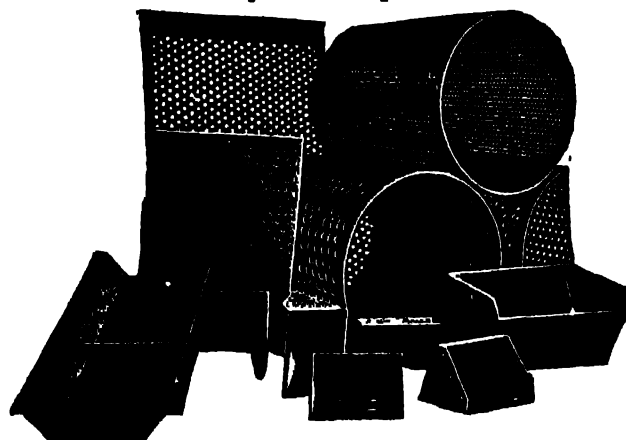
### Towel Tubes

are made at rate of 1,800 per hour. Substantially built and fully guaranteed.

## PERFORATED METAL SCREENS

IN STEEL AND ALLOYED METALS

For Pulp and Paper Mills



Elevator Buckets, Conveyor Flights  
and Troughs, General Sheet and  
Light Structural Work

### HENDRICK MANUFACTURING CO.

75 Dundaff Street, Carbondale, Pa.

New York Office, 30 Church St.

Pittsburgh Office, 915-916 Union Bank Building

## The Sandy Hill Iron & Brass Works

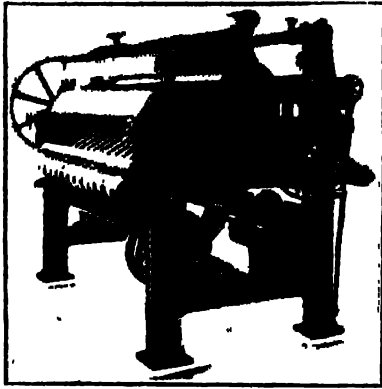
Hudson Falls, N. Y.

Manufacturers of

# Paper and Pulp Mill Machinery

## THE CLARK-AIKEN CO.

Successors to  
H. C. Clark & Son Machine Co.  
**PAPER MILL MACHINERY**  
LEE, MASS.



Revolving Paper Cutters—Rag Cutters—Cylinder Paper Machines—Washing and Beating Engines—Chilled Iron and Paper Calendars—Fan and Stuff Pumps—Engine Roll Bars and Bed Plates—

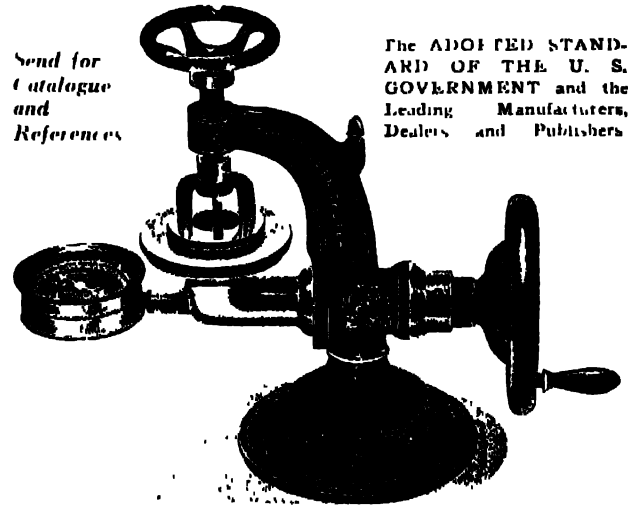
Cylinder Molds—Marshall Drives—Slitters and Rewinders—Reels—Dryers with Improved Packing Boxes—Wet Machines—Gun Metal and Rubber Rolls—Rolls Reground.

## THE WORLD STANDARD THE MULLEN PAPER TESTER

We claim that two samples of paper, uniformly made of the same stock of equal weight, thickness and finish, tested on this machine, will show exactly uniform tests. The test results are shown, not in some arbitrary scale, as with other tests, but in pounds pressure per square inch, a recognized standard the world over.

Send for  
Catalogue  
and  
References

The ADOPTED STANDARD OF THE U. S. GOVERNMENT and the Leading Manufacturers, Dealers and Publishers



**B. F. PERKINS & SON, Inc.** Sole Manufacturers  
HOLYOKE, MASS

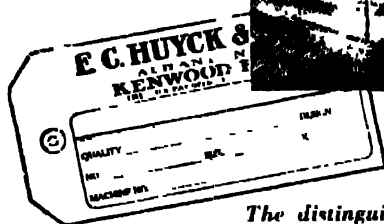
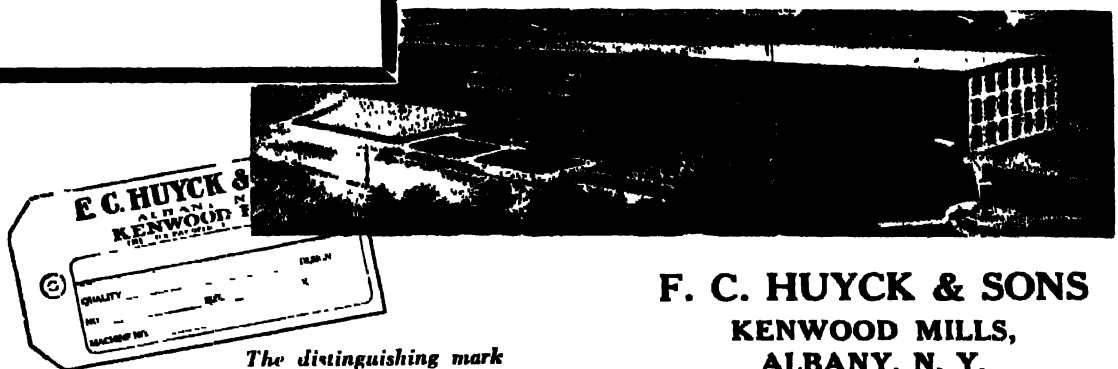
PARSONS TRADING CO

17 Battery Place, New York City 28 Fleet St., London, E. C., Eng.

Established 1870

## Kenwood Felts, Kenwood Seamless Felts and Kenwood Tan Jackets

The economy of Kenwood Felts is reflected in the balance sheets of both production and costs.



The distinguishing mark  
of Kenwood Felts

**F. C. HUYCK & SONS**  
KENWOOD MILLS,  
ALBANY, N. Y.

JOHN ASPEGREN,  
President

Telephones { 8311  
8312 Murray Hill  
8313

NILS R. JOHANESON,  
Vice-Pres. & Gen. Mgr.

# SCANDINAVIAN AMERICAN TRADING COMPANY

50 EAST 42nd STREET NEW YORK CITY

## WOOD PULP

Among other brands we sell the following Pulp as Agents:

Castle Brand Extra Strong Mitscherlich Sulphite

Annual Production 15,000 dry tons.

Uddeholm Bleached Sulphite

Annual Production 20,000 dry tons.

Tonnages Available for Prompt and Future Delivery.

Wire for Prices.

3

### Our Service and Our Quality

are advertised by our patrons, who know they can rely on LaBoiteaux for the BEST at all times. They will tell you that headquarters for

## Box Boards

*and Paper Board Specialties*

is wherever LaBoiteaux maintains a "service station" in Cincinnati, Chicago, Cleveland, New York

**The C. L. LaBoiteaux Co.**

Cincinnati  
Cleveland

Chicago  
New York

## COLLINS MANUFACTURING COMPANY

SAMUEL R. WHITING, Pres. and Treas.

Manufacturers of

LOFT DRIED PAPERS

LEDGERS

BONDS

WRITING PAPERS

**Mill:** North Wilbraham, Mass.

**Main Office:**

208 Race Street

Holyoke, Mass.

**E. J. KELLER COMPANY**  
INCORPORATED

200 FIFTH AVENUE  
NEW YORK

FOREIGN AND DOMESTIC  
PAPER MAKERS' SUPPLIES  
CHEMICAL AND MECHANICAL PULPS  
COTTON, JUTE AND FLAX WASTES  
EAST INDIA MERCHANDISE

## PAPER and BOARDS ALL GRADES

Direct Mill Service to the Paper Merchant

*Boston Hill Company*

INCORPORATED

501 Fifth Avenue at 42nd Street  
NEW YORK CITY

1

# BOOK PULP

"SOMETHING NEW IN PAPER-MAKING"

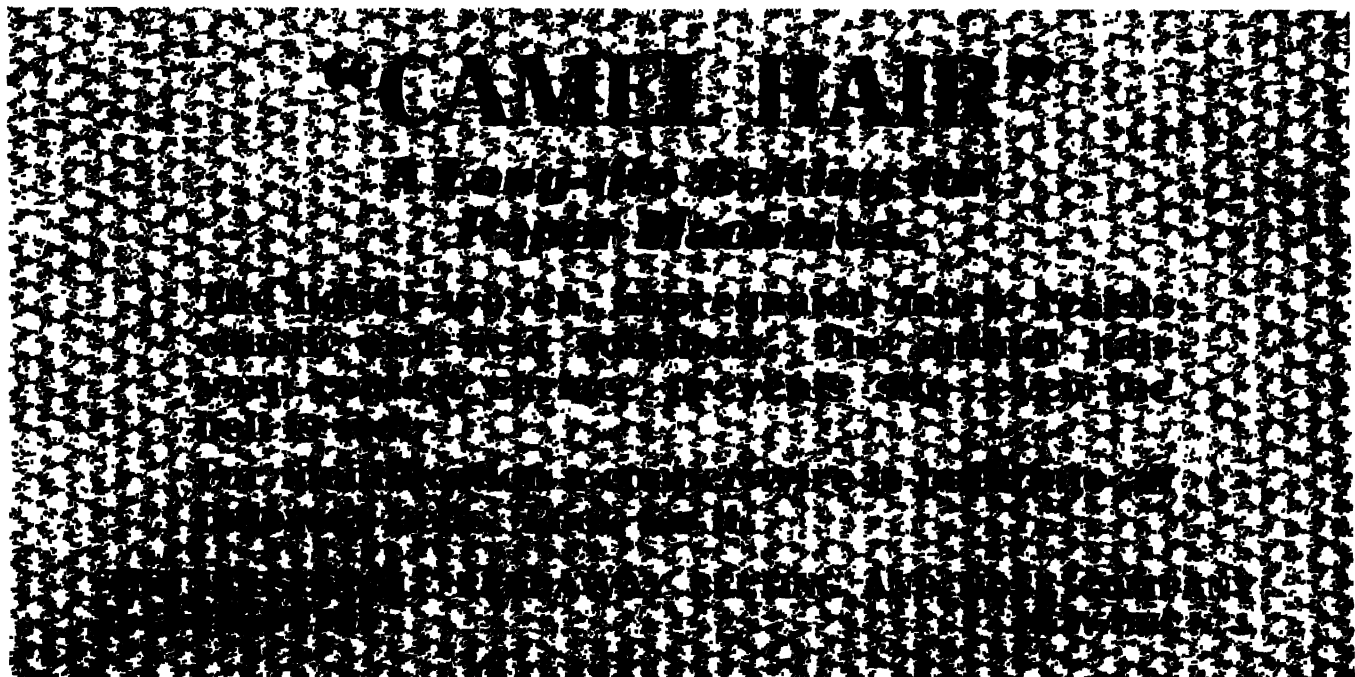
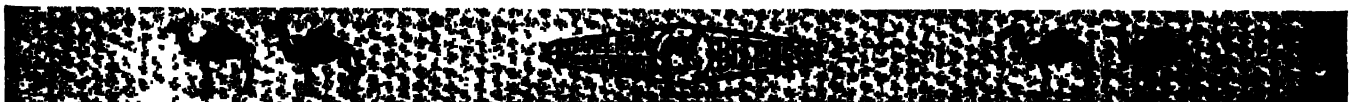
Our clean, bleached white Book Pulp possesses all the paper-making elements and advantages of bleached sulphite and soda pulp, at a cost slightly higher than that of ground wood pulp. It enables the practical paper-maker to cut costs and create new grades.

**New York and Maryland Pulp and Paper Co.**

522 Fifth Avenue

New York

**MILL—METUCHEN, N. J.**





SOLE AGENTS in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH CELLULOSE ASSOCIATION, HELSINGFORS, FINLAND**  
 comprising all and every sulphite, Sulphate and Kraft pulp mill in Finland. Manufacturers of superior grades of Bleached and Unbleached Sulphites, Easy Bleaching Sulphates and Kraft Pulps.

ALSO



SOLE AGENTS in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH WOOD PULP UNION, HELSINGFORS, FINLAND**

a combination of the foremost Ground Wood Pulp and Board mills in Finland, makers of various kinds of boards and dry and wet Brown and White Mechanical Wood Pulp.

*Get the most for your money by getting next to our qualities and prices!*

**WOOD**  **PULP**

**LAGERLOEF TRADING COMPANY, Inc.**

**NEW YORK OFFICE:**

18 East 41st Street  
 Tel. Murray Hill 4246-7.

**CHICAGO OFFICE:**

1932 Conway Building  
 Tel. Main 1770-71.

**INQUIRIES SOLICITED**

MEMBER OF THE A. B. C.

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

**FIFTIETH YEAR**

PUBLISHED EVERY THURSDAY BY THE  
**LOCKWOOD TRADE JOURNAL COMPANY, INC.**

LESLIE R. PALMER, President

J. W. VAN GORDON, Vice-President

Telephone { 2380  
2381 } Vanderbilt

10 EAST 39TH ST., N. Y., U. S. A.

Cable Address Catchow, New York

Western Publication Office—431 S. Dearborn Street, Chicago

Washington Office—L. M. Lamm, 63 Home Life Bldg.

New England Office—Room 46, 127 Federal Street, Boston

Western New England News Office—Michael Connor, Holyoke

London Office—Stonhull & Gillis, 58 Shoe Lane

*THE PAPER TRADE JOURNAL is the pioneer publication in its field, and has for many years been the recognized Organ of the Paper and Pulp Industry. Its circulation is greater than the combined circulations of all other publications in the field. Entered at New York Post Office as second-class mail matter.*

## Terms of Subscription

UNITED STATES AND MEXICO..... Per year, \$4; 6 months, \$2; 3 months, \$1  
CANADA AND FOREIGN COUNTRIES IN POSTAL UNION .. . . . Per year, \$6  
SINGLE COPIES ..... 10 cents

## Other Publications of Lockwood Trade Journal Company, Inc.

AMERICAN STATIONER AND OFFICE OUTFITTER (Weekly) ..... Per year, \$2  
LOCKWOOD'S DIRECTORY OF THE PAPER  
STATIONERY AND ALLIED TRADES (Annual) } ..... Per copy, \$7

Vol. LXXIII. No 14

NEW YORK AND CHICAGO

Thursday, October 6, 1921

## Table of Contents

### News of the Trade:

U. S. Pulpwood Commission to Be Welcomed 16  
Riordan Reappears on Stock Exchange 16  
New Mill Authorized 16  
Canada and the Australian Market 16  
Howard Smith Declares Dividend .. 16  
New Timber Limits Acquired 16  
Timber Limits Offered for Sale 16  
Bids and Awards for Government Paper 17  
Plans for Paper Week in Chicago 17  
Many New Pulp Mills Projected 17  
Endorse Work of East Association 17  
Low Water Handicap, Holyoke Mill 17  
Watertown Mills Suffering from Low Water 18  
St. Regis to Start Making Boxes 18  
St. Regis Cuts Wages by 10 Per Cent 18  
I. P. Asks Strikers to Vacate Houses 18  
To Install Sulphate Lamms in Indian Mill 18  
The New Cady Board Tester 18  
Superintendents Meet at Wisconsin Rapids 20  
W. H. Zuchilse Leaves Tchulach Mill 20  
May Establish Commissary Department 20  
Valley Paper Mill Company Progressing 20  
To Oppose Freight Rate Increase 20  
W. T. Schmitt Leaves American Writing 20  
Alaska Paper Mills Handicapped by Freight Rates 20  
Better Demand in Philadelphia 22  
Continued Better Demand in Boston Market 24  
Business More Active in Miami Valley 24  
Paper Demand in Toronto Gaining 26  
Continued Improvement in Chicago 28  
Survey of the Folding Box Industry 30  
New York Trade Jottings .. 34

### PAGE

Recommendations on Unemployment 39  
S. D. Warren Company Reduces Wages . . . 39  
Mill Bristol Trade Customs 39  
To Begin Open Hearings on Tariff November 1 39  
Current Paper Trade Literature 40  
Beater Room Hazards 46  
Imports of Paper and Paper Stock for August 48  
Exports of Paper and Paper Stock for August 50  
Imports and Exports of Paper and Paper Stock 60  
Asks Creditors to Accept Settlement 60

### Editorial:

Foreign Paper Business Better 38  
For Relief of Idle Workers 38

### Obituary:

Calbert T. Rhoads 36  
Thomas S. Coolidge 36  
W. T. McAlpine 36

### Practical and Technical:

Practical Questions and Answers 32

### Market Review:

New York Market Review 58  
Market Quotations 59  
Miscellaneous Markets 62

Want and For Sale Advertisements, Pages 64 and 65

## U. S. PULPWOOD COMMISSION TO BE WELCOMED IN CANADA

**Sir George Foster Has Already Given Assurances That the American Commission Will Be Courteously Received and That Everything Will Be Done to Facilitate the Mission—Increased Demand and an Upward Trend in Prices Have Marked the Wrapping Paper and Paper Board Market—Every Effort Made to Induce Australia to Give Canada Same Preference as England on Paper**

(FROM OUR REGULAR CORRESPONDENT)

MONTREAL, Que., October 3, 1921.—The reason why President Harding has delayed the appointment of a commission to visit Canada, regarding the pulpwood embargo, is said here to be that it has suddenly been remembered that Canada can only be approached for diplomatic purposes through the medium of the British Foreign Office. Such a delay will not be necessary when the proposed Canadian Minister in Washington has been appointed. That the British Foreign Office will expedite the proposed conference everybody here agrees and the Ottawa government, through the Minister of Trade and Commerce, Sir George Foster, already has given assurances that the American commission will be courteously received and that everything will be done to facilitate the mission.

There is a suggestion that the Dominion Government should call a conference of the premiers of the affected provinces to meet the coming American commission and representatives of the Dominion Government for a general discussion of the issue, but such an outcome is improbable owing to political exigencies and other reasons.

### Riordon Reappears on Stock Exchange

The reappearance of Riordon stock on the exchange board and the slight advance of its price to three was accompanied by a rumor to the effect that plans for the re-establishment of the company were definitely taking shape and that there was a chance that something would be found in the settlement for holders of the common and preferred stocks. It is known that those interested are still endeavoring to find a solution of the company's difficulties, but it is also stated, on good authority, that nothing new has transpired to change the situation as last reported. It is possible that the matter may drag on for some weeks and it is also possible that something will happen at any time to bring matters to a head. In the meantime, purchasers of this stock are generally thought to be indulging in a gamble, which, at the worst will not entail a serious loss.

### New Mill Authorized

Authority for the construction of a \$500,000 plant at Three Rivers, Que., has been given to the Three Rivers Pulp and Paper Company by the municipal council of Three Rivers. The erection of this plant will be commenced this year, it is said.

### Increased Demand for Wrapping Paper

Increased demand and an upward trend in prices have marked the wrapping paper and board market the past week, according to reports reaching the Canadian Pulp and Paper Association. The market for these commodities, which has been more or less stationary for some months, has become suddenly active. Paper stock from which boards are made and which was recently selling at so low a price that collectors refused to make their customary collections, is now quoted at from \$16 to \$18 a ton and in brisk demand, both locally and for export. Canadian collectors are shipping part of their accumulations to the States and profiting by the increased price and the exchange premium. This is making

a shortage of paper waste in Canada and indicates a higher price for boards. The improved tone in the market for these grades of paper is said to reflect the general tendency of the paper market.

### Canada and the Australian Market

The Department of Trade and Commerce at Ottawa has assured the paper manufacturers that every effort has been made to induce the Australian Government to give Canada a similar preference on all lines of paper now enjoyed by England. Just before vacating the office of Minister of Trade and Commerce, Sir George Foster wrote to the Canadian Pulp and Paper Association as follows:

"I may say to you that the matter is being kept directly before the Government of the Australian commonwealth and conversations have taken place with its Prime Minister. Everything that can be done is being done to have Canada placed in a preferential position if possible equal with that enjoyed by the mother country. The utmost we have been able to obtain so far is the promise of the Prime Minister that when the bill finally becomes law, he will take up negotiations with us in reference to commercial exchanges in Canada and Australia."

The new Minister of Trade and Commerce, the Hon. H. H. Stevens, of Vancouver, since taking office has opened up fresh negotiations with the Australian Government with a view to establishing preferential trade and securing concessions for Canadian paper manufacturers.

Representatives of the Canadian paper industry now in Australia send word that the Australian Government is favorably inclined towards admitting Canadian paper to that country on equal terms with the British, and is only awaiting overtures to that end from Ottawa.

### Howard Smith Declares Dividend

The directors of Howard Smith Paper Mills, Ltd., have declared the regular quarterly dividends of two per cent on both common and preferred stock. While this action had been more or less expected lately, the company was one of those selected as the targets for rumors a little while ago when the talk of the passing of dividends on the paper stocks was more persistent than it now is. Howard Smith officials report business distinctly improving. Orders for the better grades of book and other paper are larger and more frequent than they have been for some time and they are usually accompanied by demands for rush shipment, which is taken to be an excellent indication that stocks through the country are low. It is their opinion, too, that prices are likely to hold up unless unexpected declines in the cost of production should make it possible for the manufacturers to announce reductions.

At the Cornwall plant the company has just completed the installation of a new pasting machine which will enable the company to put out a line of Canadian made covers and burst boards of high grade and in sufficient variety for the high standard of catalogs, plates, etc., which advertisers and other users now demand. The recent completion of the sulphite mill will enable the company to manufacture this product economically and to command a supply of specially prepared pulp.

### New Limits Acquired

The Emerson sawmill at Prince Rupert, B. C., and its timber limits in that district and several water powers as well, are being taken over by the Prince Rupert Pulp and Paper Company, Ltd. The sawmill is located on Prince Rupert Harbor and has a cutting capacity of 40,000,000 feet a year. The plans of the Prince Rupert company call for the installation of a pulp mill of 200 tons a day capacity, which will be located alongside the existing sawmill. The first unit being installed is a forty-ton sulphite mill, which it is expected will be completed early next year.

### Timber Limits Offered For Sale

Tenders are being called by the British Columbia Government for a large area of pulp timber near Prince George, B. C., which it is expected that one of the provincial pulp companies will purchase.

There is a proviso attached to the sale that at least \$350,000 be expended within three years.

### Canadian Paper Trade To Meet

It has been decided that the fourth annual meeting of the Canadian Paper Trade Association will be held in Montreal on Wednesday and Thursday, October 12 and 13. It is expected there will be a large and representative attendance, particularly from the west. An interesting and attractive program is being prepared. N. L. Martin, Toronto, general secretary of the association, says that the coming convention will be the most efficient and profitable ever held.

### Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., September 28, 1921.—The purchasing officer of the Government Printing Office has received the following paper bids:

3,200 pounds 22x34 No. 16, H. M. F. yellow printing paper. Dobler & Mudge, \$09 per pound, Old Dominion Paper Company, \$118, Whiting-Patterson Company, Inc., \$1075, Whiting Paper Company, \$16, Geo. W. Millar & Co., Inc., \$1175, D. L. Ward Company, \$15, Coy. Hunt & Co., \$101.

The R. P. Andrews Paper Company has been awarded the contract by the purchasing officer of the Government Printing Office for furnishing 50,000 pounds (20,000 sheets of 25x30 No. 20 binders' board at \$0204 per pound, bids for which were opened on September 16.

Bids will be opened at the Government Printing Office on October 7 for 750 pounds of plate wiping paper for embossing process in 5 and 8-inch rolls.

The purchasing officer of the Government Printing Office has received the following paper bids:

2,500 pounds 24 x 36 30 Offset Paper for Web Presses, 30-inch rolls. Dobler and Mudge, \$069 per pound, R. P. Andrews Paper Company, \$0794, Mathers Lamm Paper Company, \$06875, George W. Millar and Company, Inc., \$125, Wilkinson Brothers and Company, Inc., \$073, Paper Manufacturers' Company, Inc., \$07625, Republican Bag and Paper Company, \$0675.

The Bureau of Supplies and Accounts, Navy Department, will open bids on October 25 for 40,000 rolls of paper towels.

Dobler and Mudge have been awarded the contract by the Purchasing Officer of the Government Printing Office for furnishing 3,200 pounds (100 reams) of 22 x 34-32 high M. F. yellow writing paper at 9 cents per pound. Bids for which were opened on September 21.

### Plans for Paper Week in Chicago

Two of the speakers have been definitely chosen for the meeting of the American Paper and Pulp Association at Chicago on November 3, during the Fall Business Conference of the paper industry.

George W. Sisson, Jr., former president of the American Paper and Pulp Association will be one of the speakers to represent the paper manufacturers and President Edward F. Herrlinger has accepted an invitation to speak as one of the representatives of the distributors. Two invitations have been sent to two prominent representatives of the consumer, but no definite acceptances have as yet been received.

Meanwhile plans are going forward for other meetings of the affiliated associations during the week. The meeting of the Waxed Paper Manufacturers has been definitely set for Wednesday, November 2 at 10 a. m., and the Vegetable Parchment Manufacturers' Association will meet, also at the Drake Hotel, on Wednesday, November 2, at 8 p. m.

### Many New Pulp Mills Projected

Thirty-nine pulp manufacturers are planning increased capacity or new mills in the United States and Canada, according to a bulletin to members of the American Paper and Pulp Association, based on a survey by Secretary H. H. Bishop of the Pulp Manufacturers' Association.

Twenty-seven others have discarded or held in abeyance plans for increased capacity or for new mills. Of the companies planning construction, twenty-three are in the United States and sixteen in Canada. Of those who have deferred or abandoned enlargement plans, fifteen are in the United States and twelve in Canada.

"This indicates essential optimism in the paper industry," said Dr. Hugh P. Baker, secretary of the American Association, the federation of the various branches of the industry in the United States, "in view of the fact that the American market is now being deluged with not only paper, but pulp, at prices lower than the product is being sold for in the countries of origin, indicating that systematic dumping is in progress."

The tabulation of projected construction indicates that compared with the present capacity, a production of 75 to 80 per cent of the theoretical capacity of the present and new mills will be all that the market would normally absorb. The increased distribution will be distributed as follows, the figures given being theoretical daily productive capacity:

UNITED STATES AND ALASKA				
	Mechanical	Sulphite	Kraft	Soda
January 1, 1921	7,825	5,700	904	1,846
Additions during 1921	210	90	160	195
Total, January 1, 1922	8,035	5,790	1,064	2,041
Additions during 1922	150	60	—	—
Total, January 1, 1923	8,185	5,850	1,064	2,041

CANADA				
	Mechanical	Sulphite	Kraft	Soda
January 1, 1921	5,541	3,060	775	26
Additions during 1921	600	240	15	—
Total, January 1, 1922	6,141	3,280	791	26
Additions during 1922	200	50	—	—
Total, January 1, 1923	6,341	3,330	791	26

### Endorse Work of Cost Association

At a meeting recently of the Executive Committee of the American Paper and Pulp Association the following resolutions were passed in endorsement of the Cost Association of the Paper Industry:

#### Be It Resolved

1 That the Executive Committee of the American Paper and Pulp Association heartily endorse the work accomplished and proposed by the Cost Association of the Paper Industry.

2 That the officers of the manufacturers associations represented on this Committee strongly urge each of their members to send to the Cost Association in Chicago, October 6 and 7, competent representatives fully instructed to take an active part in the convention discussions and conference.

3 That this committee request the Cost Association of the Paper Industry to proceed with the furtherance of the policy outlined by its president, which will be presented at the Chicago Convention at greater length, with the assurance that the executive committee of the Cost Association may reasonably expect the wholehearted cooperation of the present members of the Cost Association.

### Low Water Handicaps Holyoke Mills

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., October 3, 1921.—Just when the papermaking industry is beginning to show signs of increased activity, low water in the Connecticut river is causing numerous shutdowns. During the past week there were two twelve-hour shutdowns, while the headgates of the Holyoke dam will reopen tomorrow morning at six after being closed since Saturday night at six.

## LOW WATER HANDICAPS MILLS IN THE WATERTOWN SECTION

**Relief Is Sought for the Black River District From the State Reservoir at Forestport—St. Regis Paper Co. to Start Making Paper Boxes in the Course of a Few Weeks at Its New Plant at Herrings—St. Regis Paper Co. Cuts Wages of All Its Employees 10 Per Cent—I. P. Co. Serves Vacating Notices Upon Its Tenants Near Its Mills at Glen Park and Brownsville.**

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., October 3, 1921. The water flow in Black River has now reached a minimum stage where industrial operations along the entire valley are threatened, even the operation of the Northern New York Utilities, Inc., which supplies light and power drawn from various developments. To remedy this situation the Board of the Black River Regulating District has stepped in and is now seeking relief from the state.

E. S. Cullings, secretary of the regulating board, is now taking up with the Superintendent of Public Works of the state the question of obtaining relief for this district from the state reservoir at Forestport at the head waters of the Black river. Upon the success of this move on early heavy rains depend the immediate future of industries along the river.

### St. Regis to Start Making Boxes

The manufacture of paper boxes will be started within the coming 40 days by the St. Regis Paper Company in its newly constructed plant at Herrings. General Manager C. C. Burns said today that the roof is on the building and much of the machinery has already been installed. Some of the experts who are to take charge of operations have already been employed and are on the job.

In order that the additional thirty workmen to be employed in the new plant may be accommodated with living quarters the St. Regis Paper Company is now erecting six new houses. These will be hurried to completion so that the box makers may establish their homes adjacent to their work.

The Herrings plant has been making box board for years, shipping the output to distant customers who manufacture it into boxes which are sold throughout the country. There are employed at this mill about 150 workmen. The new plant is erected adjoining the paper mill and will take its raw material from the mill and convert it into boxes for the market.

Mr. Burns said today that the market on that particular grade of paper is very much improved. In fact, he said, practically all specialties in the paper line show encouraging signs of returning to normal. This does not apply so much to news print, but he expressed the belief that conditions are slightly improved even in this line.

### St. Regis Cuts Wages 10 Per Cent

The St. Regis Paper Company, through action by its executive committee, today declared a reduction of 10 per cent in the salaries of all employees, including the general manager and the president. It means a cut in the payroll of many thousands of dollars, for the salaried men are considered by far the highest paid employees of the company.

The first intimation of this action by the committee came today when notices were posted in all the mills and offices and mailed to those who are at work in the timber tracts and other outside places. About 50 employees are affected, beginning October 1. The notice reads:

"The Executive Committee of the St. Regis Paper Company has decided that there will be a reduction of 10 per cent in the salaries

of all employees of this company that have not been affected by the recent labor adjustment. This will be effective October 1, 1921. This reduction affects all salaries, including the president and general manager."

### Strikers Asked to Vacate Houses

The International Paper Company last week served vacating notices upon the tenants of 26 of its 33 company owned houses adjacent to the three mills at Glen Park and Brownville. The representatives of the company claimed that in view of the strikers being no longer employed by the company they must vacate for employees.

President J. T. Carty took up the case and insisted upon the tenants being given the regulation 30 days' notice, but practically all tenants have moved out. It is reported that the tenants in the company houses at Piercefield were ejected summarily, their goods being moved into the street.

Local officials of the company evince ignorance of any plan to reopen the mills in the near future with strikebreakers, but there is a feeling here that plans of that nature must have actuated the company in its action.

### To Install Sulphite Linings in India

The Stebbins Engineering and Manufacturing Company of this city has just received a contract to install the Stebbins acid proof linings in the sulphite pulp digesters in the mill of Thomas Nelson and Son, which is located in the suburbs of Calcutta, India. George F. Cropsey, of the local office, accompanied by two expert workmen, will leave October 18 for India to pass six months at the works. While the two assistants have not as yet been selected, it is understood that they will be Watertown men.

In discussing the subject today President A. F. Richter of the company said that he believed India to be developing as a paper manufacturing country faster than China, Manchuria or Japan. While there have been a few paper mills in India for a number of years, he feels that the development of the industry there has just begun.

The mill in which these linings will be installed uses bamboo for the pulp fiber in paper manufactured. The Nelsons experimented for some time before perfecting a process by which bamboo could be utilized. It is a method used in no other mills in the world.

Bibles are printed on the paper made by this concern. The paper combines light weight and strength found in no other process.

### The New Cady Board Tester

E. J. Cady has produced a board tester that gives an accurate test on any board or paper and any number of pieces, anywhere.

It is a small compact machine, electric driven and therefore never gets tired out, and the force and speed are always the same, which makes for accuracy.

It gives the accurate breaking strength per square inch up to 600 pounds. It is being built also with an attachment that will give the crushing strength of either a single corrugated wall, double corrugated wall, or triple ply corrugated wall, and the crushing resistance will be recorded on a paper dial that you can take off and hang up and have a permanent record of the carload of straw used if customer so orders it.

The tester cannot be manipulated. The clamp comes down automatically with a pressure proportionate with the thickness and character of the fabric, always tight, releases automatically as soon as the pop takes place and the plunger returns home automatically.

All the operator has to do is put the sample under the clamp, which comes down automatically. Pull a little lever forward, and the machine does all the rest, taking from twelve seconds to fifteen seconds to complete each test.

The patents covering this machine will be owned and controlled by E. J. Cady & Co.

**HIGH COLOR!**

**CLEAN!**

**STRONG!**

**MT. TOM**

**BLEACHED SULPHITE**

*May we quote?*

**A. J. PAGEL & CO., Inc.**

**347 Madison Avenue**

**New York**

## SUPERINTENDENTS' MEETING IS HELD AT WISCONSIN RAPIDS

About Fifty Paper and Pulp Mill Superintendents, Engineers and Salesmen Attend Gathering Which Is One of the Most Successful of the Kind Ever Held in the Middle West—Reforestation, Efficiency in Mill Management and Labor Relations Are Among the Principal Topics Discussed Papermakers May Establish Complete Commissary Departments Unless Merchants Reduce Prices.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 4, 1921—Reforestation, efficiency in mill management and labor relations were the principal topics for discussion at the meeting of the Northwestern Division of the American Pulp and Paper Mill Superintendents' Association at Wisconsin Rapids Friday and Saturday, September 23 and 24. About fifty paper and pulp mill superintendents, engineers and salesmen attended the gathering which was one of the most successful held in the Middle West.

The papermill men were intensely interested in the great new paper machine in the mill of the Consolidated Water Power and Paper Company. Several hours were devoted to inspection of the machine.

One of the principal addresses on reforestation was read by F. C. Bert of the Downing Box Company of Milwaukee. He said that Wisconsin offers a wonderful opportunity for reforestation and warned that unless all the interests using forest products unite at once on a reforestation project the future will see the entire country denuded of its woodlands.

The human side of efficient mill operation was discussed by Clarence Jackson, manager of the Wisconsin Rapids plant of the Consolidated company.

Addresses also were delivered by F. C. Boyce, Wausau, J. H. Slater, Escanaba, and F. A. Beisel, secretary of the association. Mr. Beisel discussed the organization's future and urged that every papermill man in this section become interested in the association. Mr. Slater placed considerable emphasis on the necessity of teamwork between employer and employee and deprecated the smoldering hostility which exists in some plants.

### W. H. Zuehlke Leaves Telulah Mill

William H. Zuehlke, manager of the Telulah mill of the Fox River Paper Company since the purchase of the plant more than a year ago, has resigned to devote all his time to his duties as secretary of the Aid Association for Lutherans, an insurance organization. Mr. Zuehlke had been connected with the Fox river company for about three years. His successor has not been named.

### May Establish Commissary Departments

Papermakers in the Fox river valley have threatened to establish complete commissary departments at their mills unless merchants reduce the cost of necessities. Notice was served on merchants some time ago by the Kimberly-Clark Company that that step was contemplated. The notice was served after a cut in wages at the mills.

Employees declared that the cost of living had not decreased in proportion to the reduction in wages and protested, although they understood that the wage reduction was necessary if the mills were to continue operating. It is said that a survey conducted by the mill owners showed that the cost of many commodities had not decreased with the market and the ultimatum followed.

Other surveys now are being made to determine definitely how much the cost of life's necessities have been reduced from the peak prices and to establish a comparison with living costs in other sections of the country. That information is to be made available

to the manufacturers. Wages in nearly every industry in the Fox river valley have been materially reduced in the last few months.

### Valley Paper Mills Co. Makes Good Progress

The financing campaign of the Valley Paper Mills Company, which is to erect a new mill at Neenah soon, is progressing rapidly, according to William F. Wolf, treasurer. Unless present plans miscarry it is intended to begin construction work soon. The plant will cost in the neighborhood of \$800,000 and will manufacture onion skin, greaseproof and glassine papers.

### To Oppose Increase in Freight Rates

Wisconsin paper mill men are united in opposition to a demand from the railroads that they be granted increased freight rates on all paper except print paper. A hearing on the application was held a few days ago before the Wisconsin Railroad Commission, which is the rate fixing body for the state. Railroad men declare they must increase the rate on other grades of paper so they will not be forced to increase the rate on print.

### Now Roseman Paper and Supply Co.

Announcement was made at Green Bay that Nathan Lurie has retired from the Lurie Paper and Supply Company and has disposed of his interest to Moritz Roseman of the Green Bay Specialty Company. The name of the firm was changed to Roseman Paper and Supply Company. Max Roseman, who has been a member of the firm for some time, will be active manager.

### W. T. Schmitt Leaves American Writing

W. T. Schmitt has resigned as manager of the DePere plant of the American Writing Paper Company and has gone to Detroit to become treasurer of the Maxwell Chalmers Motors Corporation. Charles E. Garvin was appointed manager and superintendent to succeed him. Anthony Lee recently resigned as cost accountant for the DePere plant to become office manager of the Peshigo Paper and Fibre Company.

### Alaska Paper Mills Handicapped by Freight Rates

"Special freight rate concessions are necessary if Alaskan products of paper and pulp are to be enabled to live up to the enthusiastic promises for future Pacific Coast development," says the American Paper and Pulp Association in a bulletin to members of the association. The United States Forest Service has been tagging the development of the vast resources of the Alaskan forests by the paper industry, and several new mills are projected in the Tongass forest district alone. The freight situation, however, seems to promise difficulties, for the association says:

"The Alaskan mills must face the freight rate situation in competition with Scandinavia. The summer route from Helsingfors to New York through the Kiel Canal is 4,220 miles; the winter route via Copenhagen about the same, and the summer route via Copenhagen is 4,087 miles, while the New York-Stockholm route is 3,963 miles.

"On the other hand, the distance from Seattle to New York, all water via the Panama Canal, is 6,056 miles, and the distance from Seattle to Juneau is an additional 856 miles.

"Additional handicap to the development of Alaska for paper production is found in the fact that the Juneau-New York service would come under the Coastal navigation laws, requiring shipment in American ships, at the higher cost of operation of such lines, as compared with foreign-operated ships. The Scandinavian shipments have in addition to this advantage of half of the distance, lower wages on ships, the advantage of cheaper labor in the manufacture of the pulp and paper itself, and the further advantage of a depreciated exchange.

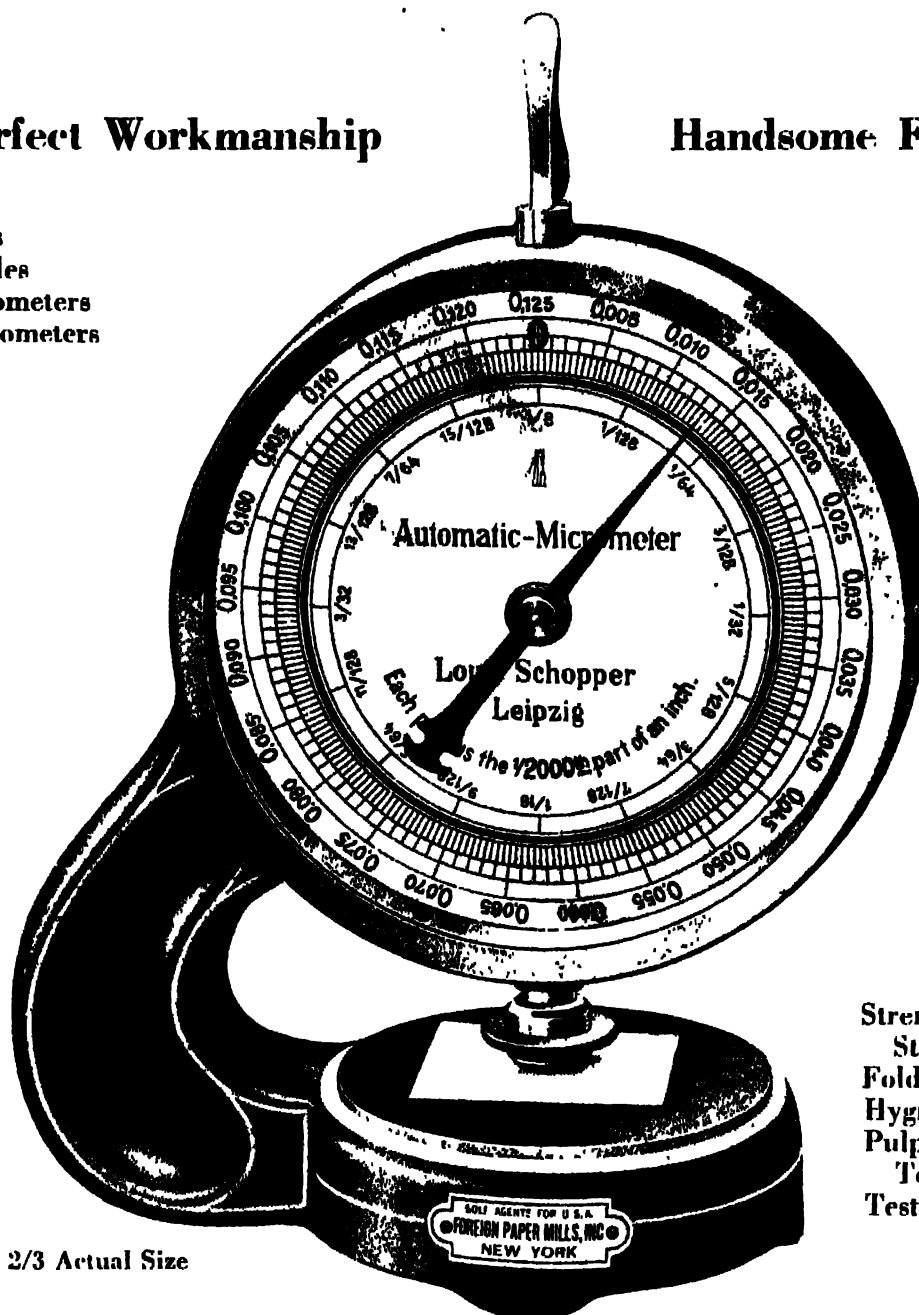
"These advantages of shipping, labor and exchange conditions to the Scandinavian producers are in addition to the even greater factor of the Scandinavian maintenance of well-managed forests, giving regular and permanent returns in pulpwood."

# Schopper Paper Testers Are the Best

Perfect Workmanship

Handsome Finish

Desk Scales  
Pocket Scales  
Desk Micrometers  
Pocket Micrometers



2/3 Actual Size

Strength and  
Stretch Testers  
Folding Testers  
Hygrometers  
Pulp Beating  
Testers  
Testing Acids

## The Original

U. S. A.

Sole Agents

Canada

**FOREIGN PAPER MILLS, Inc.**  
261 Broadway, NEW YORK

## BETTER DEMAND IN ALL LINES CONTINUES IN PHILADELPHIA

**Consensus of Opinion Is That Business for September Was About Twice That of Preceding Month—Noticeable Increase Is Reported in the Demand From Mills for All Grades of Paper Stock—Survey of Paper Situation by Federal Reserve Bank Says General Feeling Is Distinctly More Optimistic—Argo Paper Mill at Gloucester Is Expected to Start Manufacture of News Print in January.**

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, October 4, 1921—Improvement in both branches of the distribution business, the fine or printing paper and the coarse, or as it probably hereafter will be known, the wrapping, has been steady and continuous and brighter. When the members of the fine division met this week in the offices of the D. L. Ward Company, marking the first departure from the custom which has maintained during the past two years of a noonday meeting at The Bourse, every representative present was able to report that September business had been about twice the size of any of the preceding month. Because of the recession in prices, however, the money total was not double, but still there was complete satisfaction both with the business done and with the trend of the market and entire confidence that there was ahead an even greater gain.

### Continued Betterment in Paper Stock

But the outstanding development of the week was the very decided increase in mill buying of all grades of both paper and rag stock. The stock dealers report that for the first time this year they are in a position where every bale that goes out of their warehouses does not represent an actual loss. Though commons have gone up from \$2 to \$3 a ton from the low point of midsummer, the mill price is still too low to induce collections and dealers are handling this line largely only as culls in the grading of higher priced stock. But though there is no profit in these cheaper grades of mixed, commons and old news the market is now in such shape that they can be shipped to the mills as fast as they are accumulated and the price paid is sufficient to reimburse for sorting, packing and shipment. In a few instances, shipments of considerable size were made to Western mills which seem to be busier than the Eastern and which at least are eager enough for stock to pay the high freights from this city. If, as the trade hopes, freights are reduced a greatly increased market will be opened up. Quotations for the cheaper grades held firmly during the week but there were no increases. Prices for book stock, hard and soft white cuttings and other packings of the better grades moved upwards but only fractionally. There are large accumulations of these grades in the warehouses where they were stored all summer long and no speedy advance in mill prices is anticipated. The problem of the dealers is to decide at what price is it the more profitable to continue to hold or to sell.

### Betterment of Permanent Character

The survey of conditions made at the meeting of the Fine Paper Division on Thursday afternoon brought out the virtually unanimous opinion that the decided betterment in September was no "flash in the pan" but was of a permanent character. Instances of cutting below the market were reported, but the best thought was that this custom was not extensive and that a very little of it caused such noise as to mislead and give foundation for belief that it was general. Prices were reported to be generally firm with the withdrawal by several Western mills of quotations made some months ago and under the level of the majority of the Eastern mills. The revised prices of the Western mills have

not yet been received but it is believed that when they are announced they will be merely on a parity with the others.

### Activities of Paper Trade Association

The special committee headed by Morgan H. Thomas of the Garrett-Buchanan Company charged with developing a program of continuous activities for the Paper Trade Association will meet this week at the Bellevue-Stratford in the first of a series leading up to the presentation of a program next month. The committee has received several suggestions for the succession to A. N. Kimme as statistical secretary but no immediate decision will be reached.

### Federal Reserve Survey

Under date of October 1, the Federal Reserve Bank issued in its official publication a survey of the paper situation in the course of which it said:

"Evidences of improvement in the paper industry in the last few weeks, are numerous. Not only is the general feeling distinctly more optimistic, but material reasons for this optimism are found in increased inquiries, more orders, a larger volume of sales and a better confidence in prices. This does not mean that business again is on a normal basis, but simply that the inactivity which has depressed the trade this summer, no longer exists. The better demand was first noticed in August, and except for a slight falling off about the first of the month because of price changes and holiday inactivity, has steadily improved during the month of September. A few firms, however, are not so optimistic and think that this improvement is only psychological and is without any material foundation. Orders as a rule still call for immediate delivery and on the average are small but jobbers report the receipt of more mill orders than they have for some time. Purchasers still do much shopping around before buying, hence there are a number of inquiries to every order placed. But the proportion of inquiries to orders is becoming smaller as confidence in the price level grows. Collections have improved since August, which is ordinarily a bad month for the payment of bills, and they are now considered by many firms to be good."

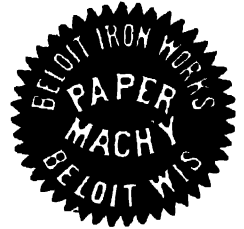
### Argo Paper Mill May Start in January

Written reports mailed two weeks ago and a cablegram received simultaneously from Norbert J. Considine, president of the Paper House of Pennsylvania, now abroad making a survey of the Scandinavian pulp situation as a source of immediate supply for the new Argo Paper Mill at Gloucester, indicate that he had been entirely successful in his errand. Treasurer Norbert A. Considine expressed the opinion during the week that the first news print from the new mill would be shipped very early in January, a slight revision of prior estimates being made because of the brief delay encountered in the final settlement for the purchase of the property. Renovations and alterations at the big plant are progressing under the personal supervision of John Ball of the Reliance Mill and Trading Corporation of New York. The machinery is to be installed next month.

### "Long List" Favored

Immediate inauguration by the paper distributors of the "long list" of prices for the benefit of the printing trade is favored by the Trade Customs Committee of the Typotheta of Philadelphia, which met during the week in the office of William F. Fell, its chairman. The other members are William Sharpless and S. Clayton Wicks. Resolutions favoring a price list from which the printing trade shall receive a large discount as against consumers, was adopted. It is proposed, however, to hold a meeting either in this city or in Baltimore, as on a previous occasion, of representatives of the industry in the larger cities along the Atlantic Coast with a view of securing unity of action to be reported to the annual

(Continued on page 60)



# *A Yankee*

*will surprise you  
with its versatility*



*Ask Yankee Headquarters  
at  
Beloit, Wis.*



## CONTINUED BETTER DEMAND IN BOSTON PAPER MARKET

**While Some Feel That the Present Buying Movement Is But a Flurry, Others Feel That It Is Just a Part of the Upward Tendency of All Industries in Their Slow Climb Back to Sane Commercial Life—Business Has Improved Especially in the Board Market, Where Prices Have Shown Some Considerable Advances—Demand for Paper Stock Also Is Much Better Than It Has Been of Late.**

[FROM OUR REGULAR CORRESPONDENT]

Boston, Mass., October 6, 1921.—Business in all branches of the paper industry in this section continues to improve. Sales are on the increase, orders noticeably larger and more of them and the demand is for immediate delivery. There are those who feel that the spurt is but a "flurry," while others feel certain it is just a part of the upward tendency of all industries in their slow climb back to sane commercial life.

Not until absolute confidence is regained in the market will large orders be placed again. In most cases the buying is from "hand-to-mouth." No one is loading up the shelves. On the other hand they're unloading and when their stock is gone they come into the market for more. This is particularly true in the fine paper end.

In the board and old papers there is plenty of big business, and in some quarters some "big talk" but the best evidence of big business in boards is the lively jump in prices quoted by the mills this week. Chip went from \$35 to \$40, as predicted in last week's issue and it is stated that a \$50 price for chip is not far off.

This, of course will not hold for any length of time and once the \$50 price is reached it won't be long before chip will be on the market again for \$35 and possibly less. News, vat lined also jumped from \$37.50 to \$42.50, while a Manila chip went from \$47.50 to \$55 and patent coated from \$65 at different prices up to \$70. Filled and solid news increased correspondingly.

One buyer when asked the reason for the generous increase simply said "Easy enough. Plenty of business ahead, two, three or four weeks. Up go the prices." No one is at all haphazard about quoting prices this week.

Demand for old news is active in these parts. Street collectors are out after it once more and offering housewives anywhere from 15 to 25 cents for it. Roofing rag prices are firmer and the box board and book mills, according to men in from the road are doing good business—that is, where they can get enough water to run the plant.

In that connection statistics show that the New England states, in which some of the largest paper mills in the country are located, have just passed through the driest and hottest September in forty-two years. This condition not only upsets conditions at the mill, many of which have been obliged to shut down, but the jobber as well. With the cry for immediate delivery, when an order is placed, it is difficult, many times, to make such a promise.

It was learned this week that straw board is being imported into Boston from foreign ports at a price cheaper than it can be bought in this country and shipped from the West. Ocean freight rates on straw board is around \$8 and \$10 a ton.

### More Active Demand from Printers

Printers of Boston and the suburbs are coming into the market for considerable stock and reporting improved condition in their respective lines, both in the way of orders and in labor conditions.

Their stock has become nearly exhausted and while their orders are not large they come steadily and add in a general way to the steadily improving condition.

There is a great scarcity of coated blanks in this field, according to one official. This is accounted for by the number of political campaigns now being waged. In Boston there is a mayoralty contest on with many more minor elections which always accompany a municipal fight.

Throughout the state there are many more elections of consequence. Printers are rushed with orders for political posters and in many cases are having hard work to supply their orders, due to the coated blank shortage.

### General News of the Trade

Boston distributors of "Certificate Bond" went to Holyoke this week where they conferred with officials of the Crocker-McElwain Company, on matters pertaining to this particular product. A. C. Hall, treasurer of John Carter and Company, Inc., and H. E. Waite, sales manager of the same house, together with W. B. Stevenson and Mr. Cummins of A. Storrs and Bement Company, were the Boston delegates who attended the conference.

Following the meeting Mr. Hall started on a vacation motor trip through Canada.

Mr. Hurd of A. Storrs and Bement this week arranged to have F. A. Luckett of the Strathmore Paper Company address the salesmen. Mr. Hurd has arranged a number of such meetings which are a feature of this well known paper house.

Col. Edgar Smalley, director and stockholder of Edwin Butterworth and Company, well known New England house, left this week for his home in London and Manchester, England, following his annual visit to this country. He visited the various Butterworth branches here. Col. Butterworth was one of the World War heroes, having been in the thick of many battles. He went into the service a Captain and emerged a Colonel. He was wounded during service. Col. Butterworth reports business brisker abroad than here.

Barton Crocker of Burbank and Company, of Fitchburg, was in town this week with his family. He was tendered a splendid reception.

### Business More Active in Miami Valley

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, October 3, 1921. More favorable reports are at hand this week relative to the state of trade. It would appear that a marked improvement has developed and indications point to a steady trend in that direction from this date.

In addition to the reports of greater activity sent from the Miami Valley during the past month, the activities at the Raymond Bag Company's plant at Middletown may be mentioned. According to Walter Lawrence, the Raymond company's business in the bag line is on the boom. For many months business was at a standstill, but in recent weeks there has been a reawakening until today, through the receipt of orders, the mill has been kept in continual operation at its full capacity. It was necessary some time ago to put a night force at work to get out the quantity of rush orders.

The Advance Bag Company of Middletown also is experiencing a good run of business.

Manufacturers generally throughout the valley are looking to the future with confidence. The feeling prevails that inasmuch as stocks have been reduced to the lowest point consistent with safety and good business judgment, it will be incumbent upon all to purchase commodities of various kinds, the demand naturally will be created, the public will resume buying on its former scale, and that for a time at least there will be a genuine rush of orders. The rush may not approximate that of normal years but it will be of such a character, it is claimed, that it will prove of distinct advantage to all.

The opening of school in all localities has resulted in a spurt of stationery and tablet buying. Tablets are much cheaper than last year and reports from the Reynolds & Reynolds Company, manufacturers of this city, show that the demand in all parts of the United States probably never was heavier.

# J. Andersen & Co.

21 East 40th St., New York, N.Y.

## A-1 Bleached Sulphite

Agents for  
**KELLNER-PARTINGTON PAPER PULP CO. LTD.**  
Borregaard, Norway

---

# WAYAGAMACK

## KRAFT PULP

*Uniform in Quality  
Essential for Strength Requirement*

**The Pulp and Paper Trading Company**  
21 East 40th St., New York, N. Y.

Sole Agents for United States for  
**CANADIAN KRAFT, Ltd.**                      **Three Rivers, Canada**

## PAPER DEMAND IN TORONTO CONTINUES TO SHOW GAIN

**Prices, Except in One or Two Lines, Are Believed to Have Reached Bottom and Price Revisions, It Is Stated, if Any Occur, May Be in an Upward Direction—Spanish River Pulp and Paper Mills, Ltd., Declares Regular Quarterly Dividend of One and Three-Quarters Per Cent—Pulp Market Is Showing More Activity and Prices Are Slightly Firmer Coating Plants Are Busier**

[TORONTO, OCTOBER 3, 1921. (CORRESPONDENT)]

TORONTO, Ontario, October 3, 1921 - Business in all lines of the paper trade continues to show a steady gain, the turn in the tide of affairs having set in a month ago. There is a much better feeling prevailing and the jobbers as well as the manufacturers have the same story to relate. Prices are now looked upon as having reached bottom, except in one or two lines, and it is reported that if any revision occurs it will be in an upward direction. No material changes are expected either way before the close of the year. A report is heard that there may be a slight reduction in coated papers in sympathy with the recent drop in book and writing. Coated paper plants are increasing their output, manufacturing stationers are getting busy on specialties for the coming Christmas holiday trade and even business in the envelope manufacturing line, which has been dull for many weeks, is showing signs of renewed life.

The printers' strike in Toronto still continues and has now entered upon its fifth month with no signs of settlement. The workers in Ontario paper mills, according to one manufacturer, have little or no sympathy with the printers' strike for it resulted this summer in a partial demoralization of the paper trade, in that the mill employees, which up to that date were working full time, lost from two to three days a week. A number of paper plants are now going full capacity and others in Ontario are running more days in the week than they have been.

The pulp market is getting a little more active and prices are a little firmer. The demand for kraft and wrapping paper is showing more strength and one leading firm reports that its sales for September are the best it has had for any month this year. Kraft pulp is in fair demand at \$65 a ton. The Canadian Pulp and Paper Association has issued a new booklet on trade customs for book and litho papers in which recent revisions have been incorporated.

### Better Outlook for News Print Reported

The annual meeting of the directors of the Spanish River Pulp and Paper Mills was held last week in Toronto, at which President George H. Mead, of Dayton, Ohio, presided. All the old directors were reappointed and the regular quarterly dividend of one and three quarter per cent on both the common and preferred shares was declared. In accordance with the tendency of the times, the company has made a ten per cent reduction in the remuneration of all salaried employees from the president down, effective October 1. A special by-law was passed by which the directors were authorized whenever they saw fit, to purchase or acquire shares or other securities in any other corporation or corporations having objects altogether or in part similar to those of the company, or carrying on any business capable of being conducted so as directly or indirectly to benefit the company, and to use the funds of the company for such purposes.

President Mead explained that the passing of this by law merely restored to the company the right which it possessed under its charter as a provincial company until two years ago when that right was removed from all companies by an amendment to the general law. He further explained that it was necessary, in the carrying on of the business of the Spanish River company, that

certain driving companies, river companies and pulpwood concerns and sometimes others be held in a smaller or larger interest by the Spanish company.

Speaking of the paper outlook, President Mead declared that he was astounded at the lack of confidence that seemed to have been displayed by the public in the paper industry in Canada. To his knowledge there had been no paper company in Canada, or up to the present time in the United States, that found any difficulty in meeting all its obligations. The paper industries of both countries had been operating upon a larger per cent of production than perhaps any other industry of anything like the same magnitude. He considered that Canada was very fortunate in having for one of its greatest and one of its basic industries the news print paper business. "Through a time of exceeding depression," concluded Mr. Mead, "perhaps greater than ever before known in the present generation, the news print industry has been operating on a production of approximately eighty per cent capacity and any industry that can operate upon such a basis, if the plants are properly managed and the business is given the right amount of care by a conscientious board of directors, should be able to meet every fair and proper obligation."

### Pulpwood Case Settled Out of Court

The Russell Timber Company of Port Arthur, against which the Ontario government entered a suit, has settled the case out of court. The government profits to the extent of \$55,000. The Russell company is to pay into court \$37,500 immediately, plus interest covering the period from the Timber Commission's findings. Two thousand cords of pulpwood at Laan, valued at \$24,000, are to be sold by public auction and the first \$17,500 paid into the government treasury, the defendant to retain the balance, neither party to be assessed court costs. The Russell company was alleged to have wrongfully secured 79,350 cords of pulpwood by taking advantage of and violating the mining acts of the province of Ontario.

### Kinleith Paper Mills Increases Output

W. J. Gage & Co., manufacturing stationers and publishers, Toronto, and proprietors of the Kinleith Paper Mills, St. Catharines, have recently increased the capacity of the plant by lengthening the wire of No. 2 machine, putting on an extra press and adding twelve additional dryers. The mill now has an output of twenty-five tons a day. Frank Symons, for a number of years representative of W. J. Gage & Co. in the Maritime provinces with headquarters at St. John, N. B., has been appointed manager of the company's warehouse and office in Montreal, succeeding the late James Imrie. O. W. Dickens, who has been covering northeastern Ontario for the firm, has gone east to take Mr. Symons' work in the East and Ray McNamara, late of the Montreal office, has joined the sales staff in Toronto.

### General Notes and News Jottings

George W. Pauline, assistant managing director of Ritchie & Ramsay, coated paper manufacturers, Toronto, spent the past week in Michigan, where he visited a number of paper plants.

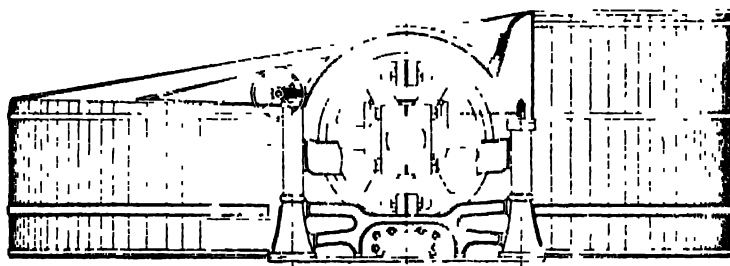
C. Nelson Gam, sales manager of the Don Valley Paper Company, Toronto, has returned from a business trip to Winnipeg and reports trade in the west as improving in the paper line and a better feeling prevailing than for some time past. Another business visitor to Winnipeg during the past few days was George C. Winlow of the Canada Paper Company, Toronto.

W. P. Bennett, president of the Rudd Paper Box Company and former president of the Canadian Paper Box Manufacturers' Association, spent the past few days on a business trip to Halifax, N. S.

The Ontario government has decided to extend the Temiskaming and Northern Ontario railway, which is owned by the province, to Smoky Falls, a distance of seventy miles north of Cochrane. The extension of the line will make available waterpowers capable of developing more than 100,000 horsepower of electric energy and tap a country rich in pulpwood.

A large manufacturer of Board Cartons operating a Niagara Beater on Kraft and Mixed Papers, says:

"The beater has been in operation six months and we have had no expense for up-keep. It requires about 90 H. P. and we are getting the same production at less expense, as obtained previously with two Holland type engines."



*Ask the Mill That Owns One*

**Valley Iron Works Co.**

**Appleton  
Wis.**

## SLOW BUT SURE IMPROVEMENT IN PAPER MARKET OF CHICAGO

**Still a Buyers' Market in Chicago, But Situation Is Easing—Recent Price Cuts Have Increased Confidence—Mills Are Withdrawing Standing Price Lists—Stiffer Quotations With Firmer Market Conditions Are Expected—Another Sign of Better Business Is Inability of Jobbers to Place Orders With Mills for Short Deliveries—Improvement Will Continue—General News of the Trade.**

CHICAGO, October 3, 1921—While the Chicago paper market is still dominated by the buyer element, the paper sales forces report that the situation is easing gradually and they look for continuous improvement, slowly but surely.

One mill representative when asked how the buyer attitude now compared with that evidenced last spring, said that there was "all the difference in the world." He said last spring buyers would hardly listen to a paper salesman for they looked for reduced prices and even fairly good concessions were laughed at as poor excuses.

The buyer attitude here today is said to be much easier. Recent cuts in prices have given these buyers more confidence and they buy a little easier, though still carefully.

The paper merchants here are feeling a bit more certain of their position now than they have for a long time past. Almost every member of the trade says that the past five or six weeks have been good business weeks, and most of them look for a continuance of this better trade. Some ask if it is but a temporary condition brought on by reduced stock just at the present time, but more of them are inclined to the belief that it is a chance for the better which will probably be permanent.

On the future not many Chicago paper men will speak. They say that they have no definite way of ascertaining what the future will be and would rather not speculate. However, they are very optimistic and the recent improvement has slanted off any fear that prosperity had left the business forever.

### Firmer Market Conditions

There is some anticipation of firmer market conditions here. During last week many of the mill representatives were in receipt of notifications from their mills withdrawing all standing price lists. Other mill representatives said that while they had not received any such notifications as yet that they were expecting them.

In some circles this action is looked upon as a leader to stiffer prices. Most of these letters from the mills, while they order quotations withdrawn, say that this does not necessarily mean that prices are going to be advanced, but they are doing it because of recent advances in raw stocks.

Most of the mill representatives here have been ordered to continue taking orders for paper on the standing prices but to confirm these with the mills before accepting.

Another indication of the bettering situation in the trade is that while recently an order could be placed with almost any mill representative here, by jobbers, with a promise of delivery within two or three weeks, now, these delivery promises are being withdrawn.

It is the consensus of opinion among the trade that improvement will continue throughout the fall and winter months and up to the first of the year. Many members of the trade here feel that it will be another year before business will return to what is termed normal, while others, a little more optimistic, feel that signs of normalcy will be seen this coming spring.

### Corrugated Box Men to Meet

The October meeting of the National Association of Corrugated and Fibre Box Manufacturers is scheduled to be held at the Drake

Hotel on Wednesday and Thursday, the 19th and 20th. Many very interesting features are being worked into the program. It is expected that much time will be taken up with the recent finding developing from the hearings before the Consolidated Classifications Committee on shipping container specifications.

Col. B. W. Dunn, Chief Inspector of the Bureau of Explosives, New York, has requested that the National Association of Corrugated and Fibre Box Manufacturers be represented on a committee which will investigate the matter of proper specifications for fiber containers for all description of merchandise. No appointments have as yet been made.

The Container Club of Chicago will hold its annual meeting, banquet and election of officers in New York City, November 15 and 16. Hotel arrangements have not been definitely decided upon as yet.

### Paper Board Trade Conditions Better

The paper board trade here reports a continuance of fairly good business during the past week and anticipates a steady if slight improvement for the balance of the year. These members of the trade say that during the past month they did a very satisfactory trade considering the general situation of industry.

### General Trade News

H. J. Keenan, assistant purchasing agent for the Western News Paper Union at Omaha, Neb., spent a day in Chicago early last week while on his way to visit the mills in Wisconsin. He also stopped in later in the week on the return trip from the mills.

F. C. McClellan, president of the McClellan Paper Company, Minneapolis, Minn., has been on an Eastern trip which was terminated last week. He passed through Chicago on his way back to the home office. F. L. McClellan of the same company passed through the city a few days before. E. W. Brooke, of this company, was visiting the trade in Chicago recently.

Peter Servoss, identified with the Kalamao Paper Company, spent a few days in the city last week.

John W. Powell, sales manager of the Monarch Paper Company, Kalamazoo, Mich., arrived in Chicago early last week and spent a few days here.

Harry Pomerooy has announced that he is now the Chicago and Western Representative of the Standard Specialties Company, and has his office located at 56 East Randolph street, Chicago. He will handle the company's waxed papers and "Triangle Bags," selling to the jobbing trade exclusively.

The American Carton Company has changed its address from 554 West Adams street to 1327 West Washington Boulevard.

### I. P. Mills Resume at Orono

[FROM OUR REGULAR CORRESPONDENT]

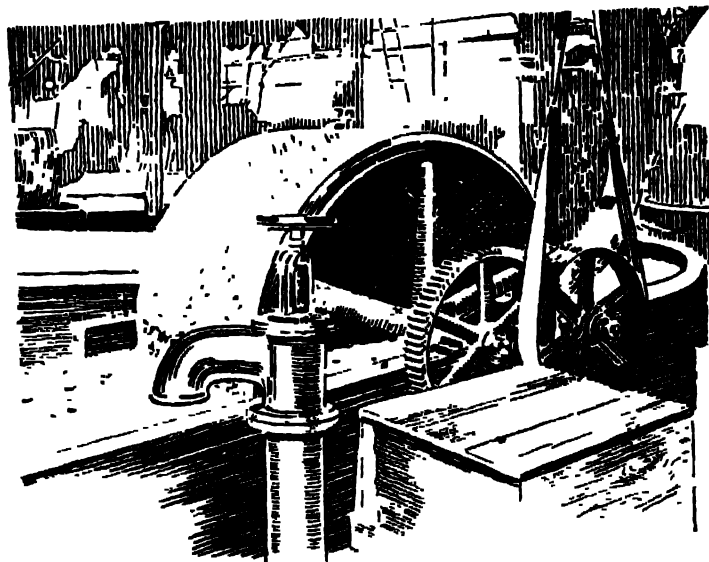
ORONO, Me., October 6, 1921—The mill of the International Paper Company here, which have been idle since the strike at all the mills of the company May 1, have resumed operations partially and will increase as fast as men can be obtained. Some of the strikers have returned and men have come from other mills.

Superintendent Stinchfield announced today that the old men will be taken back under the same condition that the company offers at other mills and new men employed if capable. The boarding which has been closed since the strike, has been reopened. There has been no disturbance here as a result of the strike.

### E. W. Lehman Goes with Post Paper Co.

DENVER, Colo., October 3, 1921—E. W. Lehman, for the past two years manager of the Whitaker Paper Company, Denver Division, has made a connection with the H. H. Post Company, wholesale paper dealer, Denver, as manager for this company. Before becoming connected with the Whitaker Paper Company Mr. Lehman was associated with the Peters Paper Company, pioneer paper dealer of Denver, as vice-president and manager.

For  
your  
information



The Bird Continuous Beater Attachment greatly increases your production, practically doubling the output of each beater.

**BIRD MACHINE CO.**  
South Walpole, Massachusetts

*Western Representatives*  
F. H. Sawyer, Jr., 1718 Republic Bldg.  
Chicago, Ill.

*Canadian Builders of Bird Machines*  
Canadian Ingersoll Rand Co., Ltd., 260 St. James  
Montreal, Canada

*The* BIRD  
CONTINUOUS BEATER  
ATTACHMENT

## SURVEY OF THE FOLDING BOX INDUSTRY

A survey of conditions in the folding box industry taken among the members at the meeting of the Folding Box Manufacturers' National Association held at The Ambassador, Atlantic City, recently pointed unmistakably to an upward turn in business from the low peak of depression that had been reached a few weeks earlier. Managers of plants that had been nearly shut down earlier in the year reported a gradual increase in business activity and a former trend in the prices of raw materials, notably in boxboard. A number of plants that earlier in the year had been operating only 25 per cent to 35 per cent of normal capacity had been able to increase production to from 50 per cent to 55 per cent of capacity, while a few plants had reached a point as high as 70 per cent. The improvement on the whole, while not marked, was sufficiently noticeable to carry the conviction that stocks of containers of all types had been so far depleted as to impel buyers to enter the market for supplies on a somewhat more liberal scale than had ruled at any time during the last year. The deduction to be drawn from this improved condition was that the acute stage of the depression had passed and the upward swing was now under way, at least at a moderate pace.

### Lowering Cost of Production

Members had been giving close attention to a lowering of the cost of production. During the period of expansion culminating a year ago, large organizations had been built up to care for the abnormal volume of business that was offered and required to meet the expanded demands of industry. The collapse that followed had made it incumbent upon managers to trim these organizations to accord with the changed state of affairs and prepare for producing a normal volume of business on a strictly economical basis. It was found that reductions were being made in salaries and wages as far as practicable to accord with the necessities of the present period of readjustment.

### Increase in Equipment

A survey had been made of the increase in cutting and creasing and automatic gluing equipment since the pre-war period. One hundred and twenty-eight plants had reported the following comparative figures:

	No of machines in plants, 1914	No of machines in plants, 1921	Increase 1921 over 1914, per cent
Platen cutting and creasing presses	480	595	24
Cylinder cutting and creasing presses	177	340	92
Automatic gluers	162	296	83

This survey on its face indicates equipment beyond any probable normal demands for folding box work for some time to come. Some of this equipment must remain idle until demand overtakes the capacity as reflected in these figures, or else new uses for cartons must be developed. At the meeting the members considered it advisable to institute a definite line of effort to investigate the possibilities of further developing new uses for cartons in every direction and it was determined to place this subject in the hands of a special committee, the members of which would be authorized to consider also the subject of the standardization of sizes and types of boxes in the interest of economy of production.

### Statistical Position of Industry

Next in importance to the survey of conditions in the industry, the statistical program engrossed the attention of the members. Charles R. Stevenson, the industrial engineer having charge of this work in connection with the cost installation work, exhibited a booklet of charts showing the volume of bookings, the amount of production and the volume of unfilled orders by months from January 1. These charts indicated quite accurately the varying degrees

of activity from month to month throughout the industry and showed a distinct upward trend. A large majority of the members realize that much value attaches to the gathering of this data regularly and that its value will increase with the passing of time as comparative data will be shown after the completion of the reports for the first year. They realize also, however, that the maximum value will not obtain until nearer 100 per cent of the industry is brought within the scope of this activity and it is to elicit the interest and co-operation of other manufacturers that the field engineer, C. N. Smedley, is devoting a large part of his time to visiting the various plants within the industry and explaining the merits of this data and the ease with which the reports can be formulated when once the system is set up. The individual manufacturer derives a distinct advantage in being able to make a comparison of his own percentage of business with that being booked at large.

### Report of Cash Committees

C. G. Boms, chairman of the Joint Cost Committee, reported that the work entrusted to that committee had reached a point where the committee could make its final report and pass out of existence, leaving future cost activities to be conducted by the recently formed cost division organized in Cincinnati on May 26 to take over and carry forward the cost work that had been instituted and prosecuted up to this time by the Joint Cost Committee. Mr. Boms submitted a financial report showing the amount that had been expended for devising the cost system, preparing schedules for meetings and consultative and supervisory services on the part of the cost engineers and also the amount expended by members for installation work done in their plants. The members of the committee were convinced that the financial stability of this branch of the industry had been materially strengthened through the educational cost work that the committee had been prosecuting since the inception of the cost program and anticipated that the newly formed cost division would continue the prosecution of this work until a large proportion of the industry had adopted these uniform cost accounting principles in the interest of stability. The report of the committee was accepted and the committee discharged with the thanks and appreciation of the association for the painstaking and effective work done under its administration.

### Mid-West Members Meet in Chicago

Following the Atlantic City meeting a sectional meeting was held at the Hotel Drake, Chicago, to accommodate those mid-West members who were not able to attend the meeting at Atlantic City.

Conditions similar to those brought out at Atlantic City were reported by the Mid-West group. The upward trend of business was if anything more noticeable among the members of this group than had been disclosed by the reports of the eastern members. There had been a distinct advance in the prices of boxboard and a much stronger buying movement had developed during the preceding thirty days.

The Butter Carton Division, of which A. W. Madsen, president of the National Carton Company, Joliet, is chairman, held a short session at The Drake on September 14 to consider statistics showing the aggregate annual production of butter, margarine and leaf lard and the approximate percentage of these products that were packed in carton form.

### To Manage Neenah Paper Co.

NEENAH, Wis., October 3, 1921.—At a recent meeting of the board of directors of the Neenah Paper Company, D. K. Brown was elected general manager of the company, and Kimberly Stuart was elected assistant general manager.

Established 1886

## **Re-adjustment**

*THE pendulum is swinging back again. The period of industrial chaos and of the disturbed "Where-are-we?" feeling which gripped the country appears at an end. Everything is indicative of a stirring revival of America's old-time prosperity.*

*WE have passed from post-war mal-adjustment to readjustment, and now we are well along through that to business peace. But we can never be the same America, whether we will or no.*

*OUR pulse has quickened, our activities have grown, our vision has broadened. It means much to us all that business should harmonize with the new spirit. We believe we are attuned to it.*

# **M. GOTTESMAN & COMPANY**

INCORPORATED

**18 East 41st Street****New York, N. Y.****BRANCHES AT****Holyoke, Mass.  
Kalamazoo, Mich.**

# PRACTICAL QUESTIONS AND ANSWERS FOR MILL MEN

**A Department for the Solution of the Troubles, Large and Small, That Are Encountered by the Workers in the Mills in the Course of Their Duties in Making Paper and Pulp — All Mill Men Are Invited to Send in Both Questions and Answers—A Free Exchange of Ideas Is Desired—By Active Co-operation This Department Can Be Made a General Clearing House for Information in Regard to Practical Paper Making.**

## How Can Waving of Paper Be Overcome?

**QUESTION No. 2547**—In the *PAPER TRADE JOURNAL* we note the Questions and Answers for mill men, and we have quite a problem which we would like to put through this department.

We are manufacturers of label paper and owing to the waving of same, some serious difficulties appear which makes it impossible for the lithographers to get the paper over the large lithographic presses without its creasing.

We are anxious to know what is the cause of this as we have made every experiment possible. In the judgment of our own executives, we rather feel it is a matter of atmospheric conditions.

We would like you to submit the question as to whether or not any of your correspondents have had similar trouble, and if so, what have they done to obviate same?

**ANSWER No. 2547**—Ward Giles of the Crown Willamette Paper Company, Floriston, Cal., has kindly sent in the following answer to the above question.

Being a finishing foreman, your question has interested me very much, but as I have never had this trouble to contend with, perhaps my suggestions will not prove practical. From studying your photograph, I think you are cutting your paper grain the long way of the sheet.

First, try cutting the paper with the grain the short way of the sheet.

Second, try stacking the paper one ream directly on top of the other, using a paper marker between each ream to keep them separate.

Third, put a piece of sheet iron or heavy tin on every eighth or ninth ream, stacking the paper same as in second suggestion.

Fourth, use a solid board frame on each side of the bundles. This will keep the paper flat during shipment and will also keep the strings from cutting in on the edge.

The last three suggestions I am almost positive will do away with the atmosphere drying or affecting the edges of the paper in any way.

If these suggestions are tried out I would like to hear what the outcome is.

## Figuring Drying Surface

**QUESTION No. 2548**—Kindly advise us if you can let us know approximately how many square feet of drying surface are required to dry 2,000 pounds of paper per hour. At the same time we would like to know what would be the variation due to different weights and grades of paper?

**ANSWER No. 2548**—Builders of paper machines figure 75 pounds of paper per square foot of heating surface per hour. This, of course, depends entirely upon local conditions and also the grade of paper being dried. Some mills run as high as 85 and in rare cases it has been known to go to 125 pounds per square foot per hour. This, of course, is very rare and it might happen today and tomorrow upon the same machine and under the same conditions be down to .85. So to figure safely it is best to figure 75 pounds of paper per square foot of heating surface per hour.

This does not vary very much according to the different weights and grades of paper. This is rather a hard thing to comprehend, but it has been determined that it is a fact and if anyone would use .75 this would be a safe figure for all general purposes.

## Percentage of Moisture in Web of Paper

**QUESTION No. 2549**—What should the consistency of the mixture in coming on the apron from the flow box and what amount of water should be lost in gravity up to the time the web reaches the first suction box? How much moisture should the sheet contain when leaving couch roller when using four flat boxes and the suction couch roll, and last, but not least, what should be the percentage of moisture a web of paper should contain upon delivery to dryers after passing through the presses?

We know, of course, that there are varied opinions regarding these points and we wish to ascertain if there is any set rule to figure these at.

**ANSWER No. 2549**—Generally the consistency of the stock when it flows on the apron from the flow box is about 96 per cent to 97 per cent water. It is impossible to tell the amount of water lost in gravity up to the time the web reaches the first suction box. There are so many conditions which enter into the question I will give you a few of the conditions so you may see that it is impossible to determine this part of your question. In the first place, it all depends upon the mesh wire which is used. The finer the wire the less water is lost by gravity. The speed of the wire is another factor in conjunction with the distance between the wire and the slice. It also depends upon the stock, whether the stock is "slow" or "free." The writer has seen the stock so free that apparently most of the water has been lost by gravity before the web of paper reached the first suction box and then again the stock has been so slow that hardly any water has been lost in the same distance. The amount of water that is in the web after it leaves the presses depends entirely upon the condition of your felts and also how much you have got your presses weighted. The writer knows of no set rules that these points may be figured at.

## Answer to This Will Be Appreciated

**QUESTION No. 2550**—May I ask through the Question and Answer Department of the *PAPER TRADE JOURNAL*, the number of gallons of water that is required per ton of box card board and fiber packing case board as produced on a six cylinder mould machine? Also, what amount of water is required for one six cylinder mould machine?

## Answer to This Will Be Appreciated

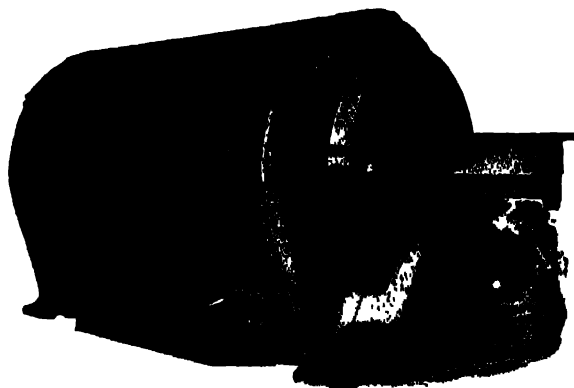
**QUESTION No. 2551**—We have a lot of trouble with the tube rolls cutting on soft paper, that is, every time we change on school book paper or similar to that, thin shiny looking marks across the sheet show up and break down in the dryers and on the calenders. We call them "tube roll cut." We know one remedy for it is to stop the rolls but sometimes they are cutting so badly that

(Continued on page 58)

# "IMPCO" TAILING SCREENER

## FOR SCREENING GROUND WOOD TAILINGS

Very Low  
Power  
and  
Upkeep Expense



Delivers  
Rejections Free  
from Good  
Stock

ANOTHER UNIT OF OUR CLOSED SYSTEM FOR PULP SCREENING

WRITE FOR FULL DETAILS

CORRESPONDENCE A PLEASURE

IMPROVED PAPER MACHINERY CO.

Nashua, N. H.

SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA

# WHALEN SULPHITE PULPS

Made from the SITKA SPRUCE of BRITISH COLUMBIA  
Noted for Fibre, Color and Strength

SNOWWHITE  
BLEACHED  
SULPHITE

GLACIER  
EASY BLEACHING  
SULPHITE

SWAN  
STRONG  
SULPHITE

As exclusive Sales Agents for all of the products of the WHALEN PULP & PAPER MILLS, LTD., in addition to stocks at the mills, we will carry large stocks of the above well-known brands in New York, thus insuring prompt deliveries.

Your inquiries addressed to any of our offices will bring prompt quotations by wire.

**CANADIAN ROBERT DOLLAR CO., Limited**  
VANCOUVER, B. C.

### U. S. ADDRESSES

Robert Dollar Co., Robert Dollar Bldg., San Francisco.  
Robert Dollar Co., 15 Moore Street, New York, N. Y.  
Robert Dollar Co., Harris Trust Bldg., Chicago, Ill.  
Robert Dollar Co., L. C. Smith Bldg., Seattle, Wash.

### FOREIGN OFFICES

Robert Dollar Co.,  
Shanghai, Hong Kong,  
Hankow, Tientsin,  
Ichang, Chungking, and  
Pekin, China; Kobe,  
Japan; Calcutta, India;  
Manila, P. I.; Singapore,  
S. S.

## New York Trade Jottings

R. S. Kellogg, secretary of the News Print Service Bureau, is out of town on a business trip to Canada.

\* \* \*

J. Fox, of J. Anderson & Co., mill agents and importers of all kinds of pulp, is on a business trip through the trade in the Middle West.

\* \* \*

O. E. Brex, formerly with the New York Overseas Company, has joined the selling force of the Caldwell Paper Company, with offices at 489 Fifth avenue.

\* \* \*

Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, recently returned from a short trip to Washington to confer on the anti dumping law.

\* \* \*

Hans Laegerloef, president of the Laegerloef Trading Company, Inc., at 18 East 41st street, has just returned from a trip to Europe, where he visited some of the Scandinavian mills.

\* \* \*

The Caldwell Paper Company announces that it has had to install additional telephone service to meet the demands of a growing business. Its new numbers are Murray Hill 4855 and Murray Hill 4031.

\* \* \*

It will be of interest to manufacturers and jobbers of book paper to know that the Big Six Typographical Union has agreed to arbitration of the new job and book printing wage scale with the New York Employing Printers' Association.

\* \* \*

Karl Becker, formerly vice president of the Hart Trading Company, has recently gone into business for himself under the name of the Becker Paper Corporation, which is at 350 Madison avenue. He is the president of the new corporation.

\* \* \*

F. H. Tuning, 436 Canal street, importer and exporter of paper manufacturers' supplies, cotton wool and fiber wastes, announces that J. J. Frank will take charge of his paper department which has recently been inaugurated. Mr. Frank was connected with the Ancram Paper Mills for fourteen years as general manager and assistant treasurer.

\* \* \*

The Haring Paper Corporation, to buy and sell to publishers news print at a price that will be actual cost to the corporation plus operating expenses, has been organized in New York. G. S. Haring, who was one of the principal organizers, formerly represented a subsidiary of the International Paper Company in the domestic field, and later handled the paper departments of Storm & Bull and Henry W. Peabody & Co., both exporters. Later he was manager of the news print division for Fred C. Stryer, leaving him to organize the present company. It is the purpose of the Haring Paper Corporation to effect an efficient distribution of news print, collecting a profit simply as selling agents from the mills themselves without charging newspapers the jobbers' profit.

### Winners in Paper Trade Golf Association

The winners at the annual golf tournament of the New York Paper Trade Golf Association, held at the Shackamaxon Country Club, Westfield, N. J., on September 27 and 28 were as follows: Low gross score—qualifying round—G. W. Hoffner—80. Kicker's handicap—F. W. Fry. Championship—Finals. G. W. Hoffner beat P. W. Simons 6—5.

Second eight.

L. Calder beat G. G. Abernethy 2—1.

Third eight:

W. D. Judd beat E. A. Wemheimer—1 up—19 holes.

Fourth eight:

R. L. Sisson, Jr., beat C. H. Morian 2—1.

Fifth eight:

William J. Boyd beat S. L. Willson 2—1.

Sixth eight:

A. K. Luke beat W. H. Holden 1 up.

Beaten fours, first eight.

F. L. McClellan beat H. A. Earle 2—1.

Second eight:

B. C. Hill beat C. N. Bicknell 1 up.

Third eight:

H. W. Sutphin beat George LaMonte 6—5.

Fourth eight:

A. B. Sherrill beat J. H. Jimsday 6—5.

Fifth eight:

A. R. Roe beat H. W. Doremus 5—4.

Sixth eight:

Frank Gubb beat A. F. Whiting 4—2.

### SPECIAL EVENTS

Luke Trophy—Best two rounds handicap, won by Louis Calder 174—32—142.

Flint Trophy—Best selected score, won by C. R. McMillen 70—3—67.

Grady Trophy—36 hole handicap, won by G. G. Abernethy 182—32—150.

### Hercules Paper Corp. Dinner

A very enjoyable dinner was tendered to the directors, executives and department heads of the various divisions of the Hercules Paper Corporation at the Island Golf Club, Cohoes, N. Y., on last Friday evening.

This party was in the nature of a "get together" affair and as such it was a decided success. During the evening the president announced that this dinner was the initial event in a well developed program that will bring the responsible heads at the different mills into monthly conferences, for the purpose of encouraging better acquaintance and an exchange of ideas.

Those present were: A. W. Maynes, director and president, C. P. Carey, mill manager and superintendent, Cohoes Mill, H. A. Clemensen, secretary treasurer and purchasing agent, H. N. Conrad, manager, Gilbert Division, G. J. Dunphy, sales manager, W. B. Gardner, office manager, Waterford Mill, Nils R. Johanson, director, L. M. Josephthal, director, F. W. Kelley, manager, Union Waxed and Parchment Paper Company Division, Hamburg, H. L. Koelsch, comptroller, F. D. Phillips, master mechanic, Gilbert Division, F. W. Pomeroy, mill manager and superintendent, Waterford Mill, J. H. Purdy, traffic manager, T. P. Renouf, superintendent, Coating and Printing Department, Hamburg; James Rosenberg, director, H. J. Schmitzer, director, W. M. Thompson, superintendent, Union Waxed and Parchment Paper Company Division, Hamburg, Arthur Vining, master mechanic, Union Waxed and Parchment Paper Company Division, Hamburg.

The outlook for the Hercules Paper Corporation appears to be bright. The Cohoes Mill, a division of the Frank Gilbert Paper Company, has operated practically one hundred per cent since the reorganization. Waterford Mill, another Gilbert Division, has done better than sixty per cent, and the tissue mill and printing and waxing plant at Hamburg has operated over half of its equipment steadily. No effort, however, has been made to open Cornwall and Rock City, but extensive improvements at Cornwall, including the double decking of the machine, installation of an extra boiler and a variable speed engine, have been started and this plant will be busy turning out specialties for the New York market before snow flies. Other extensive betterments will be announced shortly.

# "DRYDEN" KRAFT PULP

Extra Strong, Long Pure  
Sulphate Fibre

Daily Capacity 120,000 Pounds

## KRAFT WRAPPING SHEATHING PAPERS

Daily Capacity 45,000 Pounds

The Dryden Pulp & Paper Co., Ltd.  
Dryden, Ontario, Canada

ALVAH MILLER, Pres. TOM T. WALLER, Vice-Pres.  
NATH'L L. MILLER, Secy-Treas.

## Craig-Becker Company INC.

Domestic and Foreign  
Ground Wood and  
Sulphite

52 VANDERBILT AVE.  
NEW YORK CITY



## CREPE ABSORBO NAPKINS

Soft—pure white—perfectly absorbent  
—heavily creped.

We sell the jobbing trade only.  
Place your order today for some.

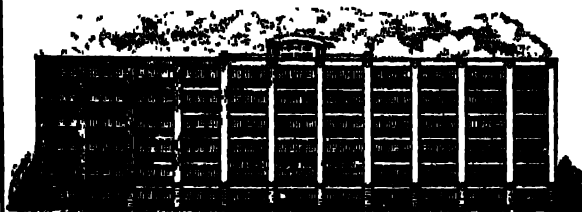
M. M. ELISH & CO., Inc.  
29 Beekman St. New York City

Mills at  
Mocanqua, Penn.  
Shickshinny, Penn.

WRITE ELISH ABOUT NAPKINS

## WAXED PAPERS

WE ARE READY TO SERVE YOU



Manufacturers of

## WAXED PAPERS

Sheet or Rolls Plain or Printed

Waxed Lunch Rolls  
Pulp and Corrugated Cake Circles

Roll Printing—1 and 2 Colors  
Sheeting and Rewinding.

ALL SIZES  
White Confectionery Bags, Glassine Bags  
Plain or Printed

DRAGON PAPER MFG. CO., INC.  
484 Van Alst Ave., Long Island City, N. Y.

GLASSINE BAGS

## Obituary

### William T. McAlpine

LAWRENCE, Mass., October 3, 1921—Hon. William T. McAlpine, a Civil War veteran and general manager of the Munroe Felt and Paper Company for 50 years, died September 27 at the home of his daughter, Mrs. Joseph E. Walworth.

Mr. McAlpine served on the Common Council in 1878 and was a member of the Board of Aldermen in 1879, 1880 and 1883. He served in the Massachusetts State Senate in 1888.

He was born in Saxtonville, near Lowell, in 1840, of Scotch parentage. At the age of eight he moved to Lowell, where he, with his brother Thomas, enlisted in the Second Massachusetts Regiment in June, 1861.

When the war ended Mr. McAlpine went to Boston, but came to Lawrence in 1870 as superintendent of the Munroe Felt and Paper Company. Later he was made general manager, retiring last spring because of ill health.

Mr. McAlpine leaves, besides his daughter, one son, William H., of Louisville, Ky., and one brother, John, of Cleveland, O.

The funeral will be held at Mrs. Walworth's home, 7 Campo Seco street, Friday afternoon. Burial will be in Bellevue Cemetery.

### Gilbert T. Rhodes

Despondent because of his unsuccessful management of the Pulp and Fibre Products Company, Gilbert T. Rhodes, 35 years old, formerly a well known lawyer in Brooklyn, committed suicide Monday afternoon by shooting in the right temple while standing in front of a mirror in his home in Park Avenue, Scotch Plains, N. J. A few minutes before Mr. Rhodes told his wife and two children, who were in the lower part of the house, that he intended to start for New York to obtain money with which to pay employees in the plant, a short distance from his home.

Mr. Rhodes, about a year ago, bought the old Seeley Paper Mills and residence, organized the Pulp and Fibre Products Company and became its president. His friends said that he had had no experience in the paper manufacturing business, and when he was unable to meet bills, about a month ago he began to worry.

Shortly after 3 o'clock in the afternoon he entered his home and told his wife he expected a taxicab. As the machine drew up to the door his wife and children were startled by the report of a pistol. They ran upstairs and found Mr. Rhodes dead, with a .32-calibre pistol by his side.

The lawyer had an office at 44 Court street, Brooklyn, and was a member of the Brooklyn Bar Association, the Brooklyn Press Club, the Brooklyn Masonic Club and the Brooklyn Lodge of Elks. At one time he was a candidate for the Assembly.

### Thomas S. Coolidge

GLENS FALLS, N. Y., October 3, 1921—Thomas S. Coolidge of Glens Falls, pioneer paper manufacturer, and a former official of the International Paper Company, died on Saturday, September 24, at his home in Glens Falls after being confined to the house for several days with heart disease. Mr. Coolidge was eighty-three years of age.

In 1881 Mr. Coolidge started the manufacture of ground wood pulp, organizing the Glens Falls Pulp Company with his brother, the late Jonathan T. Coolidge, George W. Lee and the late W. W. D. Jeffers. Five years later they consolidated the Glens Falls Pulp Company and the Lake George Pulp and Paper Company. The name of the latter firm was retained. W. I. Higgins of Glens Falls, formerly of Ticonderoga, and John Lambert were associated with the Glens Falls men in carrying on the new pulp and paper company at Ticonderoga. Mr. Coolidge was vice-president.

The Lake George Pulp and Paper Company was included in the

merger of paper mills which eventuated in the International Paper Company. Mr. Coolidge went to New York and became transportation manager of the International. After three years he returned to Glens Falls and retired.

The Ticonderoga Pulp and Paper Company was another industry with which he was long associated on the board of directors until it was absorbed by the Riordon Company of Canada. Mr. Coolidge was a prominent member of the Presbyterian Church and served as elder of the First Presbyterian Church of Glens Falls. He was born at Bolton on Lake George and left his father's farm to become a clerk in the store of a merchant in Chestertown. He later formed a partnership with the late Joseph Fowler and during the Civil War period he and Fowler kept a store in Chestertown. Mr. Coolidge went to Glens Falls about 1865 and entered the merchandise business with George Lee.

He was the oldest director of the Glens Falls Insurance Company with respect to length of service and he was also a director of the Glens Falls National Bank. His widow and one daughter, Mrs. Arthur W. Sherman of Glens Falls, survive him. A niece, Miss Estelle Palmer, has lived with Mr. and Mrs. Coolidge all her life.

### R. E. Ramsay Joins James F. Newcomb & Co.

Robert F. Ramsay, author of "Effective Direct Advertising" and "Effective House Organs," has resigned as director of sales promotion, publicity and advertising for the American Writing Paper Company, Holyoke, Mass., to become vice-president of James F. Newcomb & Co., Inc., 441 Pearl street, New York, producers of direct advertising, house organs and general printing.

Mr. Ramsay assumed his new duties October 1, but will give his entire time for the month of October to the promotion of the Direct Mail Advertising Association Convention and Exposition to be held in Springfield, Mass., October 25 to 27 inclusive.

Mr. Ramsay is well known in the direct advertising and house organ fields and his recent paper trade experience has brought him in very close touch with thousands of printers throughout the country. For seven years he has been a member of the Board of Governors of the Direct Mail Association, has addressed all of the leading advertising clubs east of the Rockies, and for a long period was advertising manager of the Art Metal Construction Company, Jamestown, N. Y. He also was for some time editor of *Postage and Advertising and Selling*, and is well known by his writings in the leading printing, direct advertising and business magazines. Mr. Ramsay is a regular lecturer on direct advertising and house organs at the New York University and other educational institutions.

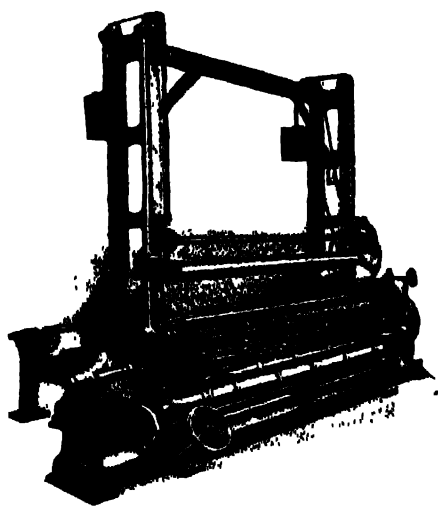
### Union To Ask Congress For Relief

FRANKLIN, N. H., October 6, 1921—John P. Burke, of New York, president of the International Brotherhood of Pulp, Sulphite and Paper Mill Workers, before leaving this city today for Wilder, Vt., said, after a conference with general manager W. A. Whitcomb of Boston, president of the Great Northern Paper Company, that labor organizations and manufacturers will ask Congress for relief from importation of paper from Germany, Norway, Sweden and other countries.

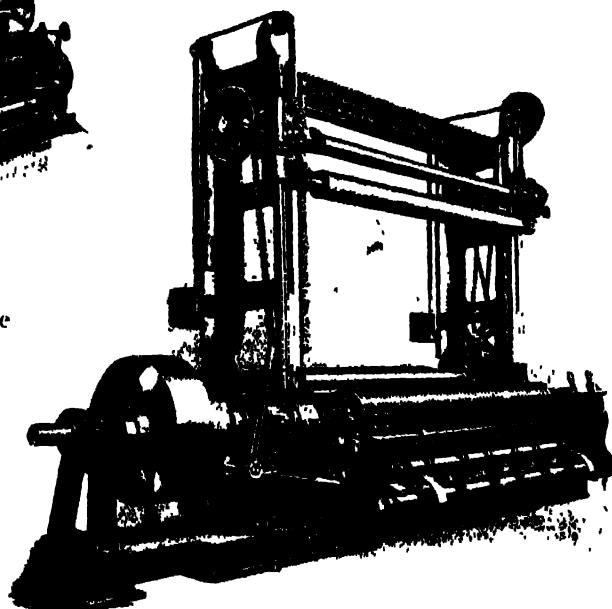
President Burke will head a delegation of his organization to appear before the Senate committee when hearings on pulp and paper are given.

### High Falls Pulp & Paper Co. Increases Stock

HIGH FALLS, N. Y., October 3, 1921—The High Falls Pulp & Paper Company has filed notice with the Secretary of State at Albany of an increase in its capital stock from \$150,000 to \$600,000.

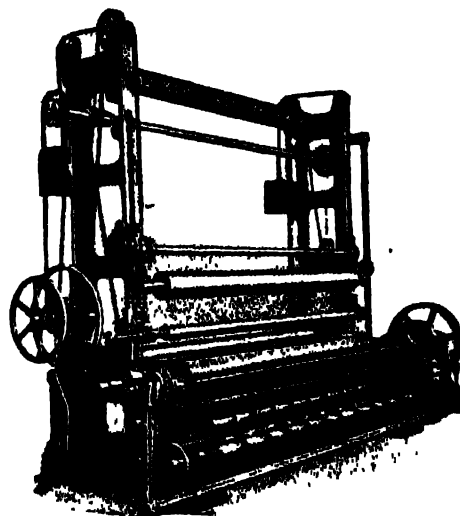


**Type "BA"**  
Built 62" to 92" wide



**Type "DA"**  
Built for high speed and many widths

These machines replace the old design of B, C and D types of Langston machines which were re-designed to include the experience of the past few years and to include such improvements as ball and roller bearings, wherever possible, and to produce in each size a heavier and more rigid machine. In principle there has been no change, but all the details have been refined, and every possible convenience added to assist the operators in handling the machines.



**Type "CA"**  
Built any width up to 122"

*Get our New Circulars for Your Files*

**SAMUEL M. LANGSTON COMPANY**

**Camden, New Jersey, U. S. A.**

**T. W. & C. B. Sheridan Co., London, England**

**Toronto Type Foundry Co., Toronto, Canada**

# Editorial

Vol. LXXIII New York, October 6, 1921 No. 14  
FIFTIETH YEAR

## Foreign Paper Business Slightly Better

The exports of paper for August, statistics regarding which have just been furnished by the Department of Commerce at Washington, show some improvement. The figures for the month were \$3,171,192, as compared with \$2,577,445 for July, the lowest mark reached in a long period. The figures for August a year ago were \$6,378,349, and the figures for the eight months ending with August were \$37,098,608, as compared with \$54,383,391 for the same period in 1920 and \$65,034,349 in 1919.

The exports of news print for August were valued at \$144,784, as against \$121,304 for July and \$688,663 for August of the preceding year. The exports of news print for the eight months ending with August were valued at \$1,712,872, as compared with \$3,966,907 for the same period in 1920 and \$7,961,701 in 1919.

The exports of wrapping paper for August amounted to \$135,968, as compared with \$133,788 for July and \$523,413 for August, 1920. The exports of wrapping for the eight months ending with August were valued at \$1,786,463, as compared with \$4,416,520 for the same period in 1920 and \$4,911,365 in 1919.

The exports of writing paper and envelopes for August were valued at \$146,519, as compared with \$163,696 for July and \$492,990 for August of last year. The export of writing paper and envelopes for the eight months ending with August amounted to \$3,631,963, as compared with \$5,250,734 for the same period in 1920 and \$11,007,687 in 1919.

The exports of paper board and strawboard for August were valued at \$80,471, as compared with \$99,500 for July and \$404,106 for August of last year. The exports of paper board and strawboard for the eight months ending with August amounted to \$1,813,444, as compared with \$3,215,749 for the same period in 1920 and \$3,534,655 in 1919.

The export of paper hangings for August were valued at \$12,286 as compared with \$12,171 for July and \$102,773 for August of last year. The exports of paper hangings for the eight months ending with August were valued at \$460,407 as compared with \$888,542 for the same period in 1920 and \$576,109 in 1919.

The imports of paper for August showed a slight improvement over July, the figures for the former month being \$7,701,240 and for the latter \$7,579,730. The figures for August of last year were \$8,769,682. The imports of paper for the eight months ending with August were valued at \$64,336,330, as compared with \$49,370,189 for the same period in 1920 and \$33,584,509 in 1919.

The imports of news print for August were valued at \$6,707,612, as compared with \$6,496,094 for July and \$7,236,614 for August of last year. The imports of news print for the eight months ending with August were valued at \$54,877,866, as compared with \$39,983,308 for the same period in 1920 and \$27,875,447 in 1919.

The imports of rags, except woolen, for August were valued at \$168,642 as compared with \$109,450 for July and \$964,184 for August a year ago. The imports of rags for the eight months

ending with August were valued at \$1,263,742 as compared with \$7,451,609 for the same period in 1920 and \$937,680 in 1919.

The imports of all other kinds of paper stock for August were valued at \$133,531 as compared with \$162,454 for July and \$1,062,971 for August a year ago. The imports of all other kinds of paper stock for the eight months ending with August were valued at \$1,414,082 as compared with \$6,585,112 for the same period in 1920 and \$1,798,993 in 1919.

The imports of ground wood for August were valued at \$371,153, as compared with \$265,938 for July and \$2,892,109 for August a year ago.

The imports of ground wood for the eight months ending with August were valued at \$2,385,288, as compared with \$8,129,488 for the same period in 1920 and \$2,665,465 in 1919.

The imports of unbleached sulphate pulp for August were valued at \$603,912, as compared with \$659,962 for July and \$2,066,564 for August a year ago. The imports of unbleached sulphate for the eight months ending with August were valued at \$4,842,980, as compared with \$8,553,433 for the same period in 1920 and \$4,465,902 in 1919.

The imports of unbleached sulphite for August were valued at \$1,046,555, as compared with \$1,043,937 for July and \$5,065,471 for August of last year. The imports of unbleached sulphite for the eight months ending with August were valued at \$7,392,781, as compared with \$20,701,082 for the same period in 1920 and \$8,153,730 in 1919.

The imports of bleached chemical pulp for August were valued at \$1,130,533, as compared with \$608,697 for July and \$2,593,557 for August a year ago. The imports of bleached chemical pulp for the eight months ending with August were valued at \$6,268,254, as compared with \$10,906,913 for the same period in 1920 and \$1,938,429 in 1919.

## For Relief of Idle Workers

An appeal to business men and chambers of commerce the country over to give active support to the Emergency Program for the relief of idle workers, as advanced by the National Conference on Unemployment, has been made by Joseph H. Defrees, president of the Chamber of Commerce of the United States and a member of the conference.

Mr. Defrees especially urged that business men get behind the plan proposed by the conference for the mayors to organize local emergency committees in their communities. He asked them to offer the mayors immediate assistance of the business organizations in order that the machinery of organization shall be speeded up on a national basis. Every town, said Mr. Defrees, has a responsibility to the nation to organize to meet this question immediately and the nation can only bring its help to bear when the cities and the states are organized so as to make their help effective.

"Business," said Mr. Defrees, "has a very great responsibility in the situation. It furnishes employment. Business men in the communities should take the lead in co-operating with mayors in creation of the Emergency Committee and in working out constructive community programs for relieving unemployment in their vicinities."

"The situation cannot be met without proper organization. It is primarily a community problem. The local business man, through

his business organization and individually, should make every effort to meet the situation in his city.

"The existing unemployment presents a real problem which must have immediate attention"

### Recommendations on Unemployment

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 3. Profit-taking, chiefly among retailers, is one of the principal obstacles to renewed employment and revival of trade, in the opinion of delegates to the President's Conference on Unemployment. Emergency measures in manufacturing, including rotation of jobs, were recommended, but the Conference was silent on wage reductions.

The Conference's Committee on Statistics found four million persons unemployed. A long list of miscellaneous relief measures was adopted and the Conference adjourned until October 10. Meantime, committee sessions will be held to work out more permanent relief plans. At these sessions, it is expected that several clashes on the wage question and on various aspects of the old capital labor controversy generally will occur.

The emergency measures to be taken by manufacturers were adopted as follows:

"Manufacturers can contribute to relieve the present acute unemployment situation by

"(a) Part time work, through reduced time or rotation of jobs

"(b) As far as possible, manufacturing for stock

"(c) Taking advantage of the present opportunity to do as much plant construction, repairs and cleaning up as is possible, with the consequent transfer of many employees to other than their regular work

"(d) Reduction of the number of hours of labor per day

"(e) The reduction of the work week to a lower number of days during the present period of industrial depression

"(f) That employees and employers co-operate in putting these recommendations into effect

"A large number of employers already, in whole or in part, have inaugurated the recommendations herein set forth, and for this they are to be commended, and it is earnestly urged upon those employers who have not done so to put same into use, wherever practicable, at the earliest possible opportunity

"(g) Specific methods for solution of our economic problems will be effective only insofar as they are applied in a spirit of patriotic patience on the part of all our people

"During the period of drastic economic readjustment through which we now are passing, the continued efforts of anyone to profit beyond the requirements of safe business practice or economic consistency should be condemned. One of the important obstacles to a resumption of normal business activity will be removed as prices reach replacement values in terms of efficient producing and distributing cost plus reasonable profits

"We, therefore, strongly urge manufacturers and wholesalers who may not have adopted as yet this policy to do so, but it is essential to the success of these measures, when put into effect, that retail prices promptly and fairly shall reflect the price adjustment of the producers, manufacturer, and the wholesaler

"When these principles have been recognized and the recommendations complied with, we are confident that the public will increase their purchases, thereby increasing the operations of the mills, factories and transportation companies and, consequently reducing the number of unemployed"

### S. D. Warren Co. Reduces Wages

YAKMOUTH, Me., October 6, 1921 --Notices have been posted in the S. D. Warren Company pulp mill here that wages are to be reduced 50 cents a day, taking effect immediately.

### Mill Bristol Trade Customs

The mill bristol manufacturers have just issued a set of mill bristol trade customs, the aim of which is to standardize and make generally known the customs under which the majority of mills have been operating for some time. There seems to be a little doubt in the minds of some of the paper merchants as to just what these two sets of customs mean. There are two sets of bristol trade customs, one applying solely to index and the other applying solely to mill bristol. The blanks do not enter into either of these. The mill bristol trade customs follow:

1 Price --All bristols to be priced per pound.

2 Size --Stock size shall be 22½x28½. Any order for other than stock size in a regular stock weight and regular color shall be for not less than 1000 pounds. All odd sizes of regular stock basis weight to be charged at base price providing the bill specified is not less than 95 per cent of the average bill of the machine.

3 Weights. The regular stock weights in size 22½x28½ shall be 100, 120, 140, 160, 180, and 200 pounds to the ream of 500 sheets. All orders for special weights shall be for three tons or more. Such special weights, whether regular size or odd size, to be charged at base price.

4 Special Colors. Minimum quantity at base price for odd colors shall be for not less than five tons; smaller quantities may be made at a price commensurate with increased cost.

5 Method of Packing --Regular sizes shall be sealed in packages of 100 sheets. Odd sizes, unless otherwise agreed upon, shall be packed in lined cases, not wrapped, with markers between each 100 sheets. All packages to be marked with the weight per 500 sheets.

6. Weight Variation. A variation of 5 per cent above or below the nominal weight shall be accepted. All bristols will be billed at the nominal weight with the following exceptions:

1 Bristol on a regular stock basis weight running more than 2½ per cent light will be billed at the scale weight.

2 Bristol on a special basis of weight not more than 5 per cent light to be billed at ordered weight.

7. Overruns and Underruns. Orders up to 5000 pounds special sizes, weights or colors, 10 per cent overrun and under-run to constitute a good delivery; orders for 5000 pounds or more, 5 per cent overrun and under-run to constitute a good delivery.

8 Claims. All claims must be made promptly upon receipt and examination of goods.

No claims can be allowed on goods which have been cut or printed.

(Experience has shown that exceptional cases occasionally arise where the fault is clearly with the mill and where an absolutely literal enforcement of this article would work injustice and hardship to the merchants. It is, therefore, understood that mills will enforce the spirit of this article, deciding exceptional cases upon their merits and according to the rules of equity.)

9 Terms. Terms of sale shall be cash in 30 days less 3 per cent. No discount after 30 days.

NOTE. Thirty days shall be construed to mean 30 days from date of invoice, and where several invoices fall in one month, 30 days from the average date of said invoices.

### To Begin Open Hearings on Tariff November 1

WASHINGTON, D. C., October 5, 1921 --Senator Penrose, of Pennsylvania, chairman of the Finance Committee, is announcing definitely that open hearings will begin on the tariff bill before his committee on November 1. The agricultural schedule will be taken up first which is where the open hearings were discontinued, and the schedules will be taken up in their order in the bill. This is the committee's program at the present writing, but it is subject to change depending somewhat upon the legislative situation in the Senate chamber.

## CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

**Electrolytic Cells in the Paper Industry.**—Anon. *Papeterie*, xliii (Feb. 25, 1921).—Brief outline of the extent to which electrolytic chlorine and caustic soda are used in the pulp and paper industry in Europe. Their use in France is not likely to develop at present, as the French market is already overstocked with chlorine, and if the paper mills were to prepare their caustic electrolytically they would probably experience difficulty in disposing of the excess chlorine thus produced.—A. P.—C.

**"Ashi" Fiber.**—M. Ishikawa, *Kōgyō Kagaku Zasshi* (*J. Chem. Ind., Tokyo*) xxiii, 1153-7 (1920); *J. Soc. Chem. Ind.*, xl, 113A (Feb. 28, 1921). "Ashi" reed fiber resembles straw in regard to the kind of cells, chemical composition, and reaction. It gave the following analytical results: moisture 11.2 per cent, water-soluble matter 3.78 per cent, ash 1.24 per cent, fat and wax 0.90 per cent, lignin 14.7 per cent, cellulose 49.8 per cent, and pectin, etc., 18.32 per cent.—A. P.—C.

**Fermentation of Cellulose.**—G. J. Fowler and G. V. Joshi. *J. Indian Inst. Sci.*, 39-60 (1920); *J. Soc. Chem. Ind.*, xl, 22A (Jan. 15, 1921). The conditions most favorable for the most rapid formation of the largest possible quantities of methane and hydrogen by the anaerobic fermentation of cellulose were studied with the object of making economic use of this form of potential fuel occurring in the form of waste paper and vegetable debris. The ferment employed was used in the form of a "bacterial emulsion" prepared from the sludge taken from the bottom of the septic tank of a sewage works. Normal celluloses were found to be most resistant, cellulose from lignified fibers were more readily, and hemicelluloses such as banana skins or plantain skins most readily, attacked. Schweitzer's reagent can be employed as a rapid test of the suitability of a cellulose material for fermentation. The efficiency and speed of the fermentation is a maximum only at a temperature near the optimum (35° Cent.), with a certain ratio of cellulose material and inoculant, and if the acid products of the fermentation are kept below 1 per cent by fractional displacement of the liquor from time to time. By gradually "building up" the bacterial emulsion a daily volume of combustible gas equal to 80 per cent of the volume of the fermenting material can be obtained with hemicelluloses. Small quantities of lead, copper and zinc salts inhibit the fermentation. The gaseous products of the fermentation contain 80 to 85 per cent of methane and have a calorific value about 1.45 times that of coal gas. The only soluble by-product that could be detected in the hemicellulose fermentation was acetic acid. It is suggested that the fermentation of cellulose waste products might probably be used as an economic source of power in such places as the western coast of India where coal is scarce.—A. P.—C.

**Conversion of Cellulose into Glucose:** Constitution of polysaccharides. II. J. C. Irvine and C. W. Soutar. *Chem. Soc. Trans.*, xcvi, 1489-1500 (1920); *J. Soc. Chem. Ind.*, xl, 76A (Feb. 15, 1921).—In previous researches on the hydrolysis of cellulose the yields of dextrose which have been claimed have not been based on the quantity of the sugar or of a characteristic derivative actually isolated, and the statements made are unreliable. With the object of ascertaining whether cellulose is really essentially a polyglucose anhydride yielding the theoretical quantity of dextrose on hydrolysis, a normal cotton cellulose was hydrolyzed by means of acetic anhydride and sulphuric acid. The product was poured into water and the precipitate of polysaccharide acetates simultaneously hydrolyzed and converted into methylglucoside by heating in an autoclave with 0.5 per cent methyl-alcoholic hydrogen chloride. About 25 per cent of the material resisted hydrolysis by this method and

was hydrolyzed with dilute aqueous hydrochloric acid and the product again brought into reaction with acid methyl alcohol. The water-soluble products first obtained were also converted into methylglucoside, and in this way a total yield of pure crystalline methylglucoside was obtained in three distinct stages of progressively increasing difficulty, amounting to 85 per cent of the quantity theoretically possible if cellulose consisted entirely of dextrose residues. Evidence of the non-uniformity of the dextrose linkages in cellulose is thus afforded by the variation in the ease with which the dextrose residues are eliminated from the polysaccharide by acid hydrolysis. The proportion of the cellulose molecule which is most resistant to hydrolysis agrees closely with that corresponding with the maximum yield of cellobiose octa-acetate obtained from cellulose, and this disaccharide apparently represents the most resistant portion of the cellulose molecule.—A. P.—C.

**Decomposition of Cellulose by Aerobic Bacteria.**—J. Groenewege. *Med. Geneesk. Lab. Welterreden*, 163-269 (1920); *J. Soc. Chem. Ind.*, xl, 76A (Feb. 15, 1921).—There are two views as to the decomposition of cellulose in nature: one that it is anaerobic and brought about by organisms which are not positively determined, the other that it is aerobic and brought about by two groups of organisms, one group decomposing cellulose directly, the other group being denitrifying organisms. Extensive experiments were carried out from the second point of view, all the cultures being made aerobically. A septic tank liquid and earth were used as the sources of the organisms. The culture medium consisted of tap water to which were added 2 per cent of filter paper, 0.25 per cent of potassium nitrate, and 0.05 per cent of dipotassium phosphate. When this medium was inoculated with either of the substances mentioned and incubated at 37° Cent. gas was given off, the nitrate was reduced to nitrite and to nitric oxide, and the paper was reduced to a pulp; if at this stage the solution was poured off from the pulp and fresh medium (without filter paper) added, reduction of nitrate again took place, and the pulp was gradually dissolved. The organisms in these cultures were sub-cultivated on agar plates and pure cultures obtained. These were found to fall into three groups: those which effected denitrification but did not attack cellulose; those which did not denitrify but attacked cellulose; and those which did neither. The first group contained *Bacillus viscosus* and *B. opalescens*, and the second group *B. cellaresolvens* alpha, beta and gamma. Cultivations of each member of one group with each member of the other group were made and full details of the results are given. It is concluded that the three varieties of these *cellaresolvens* attack cellulose, and that the decomposition products serve as food for the denitrifying organisms, *B. opalescens* and *B. viscosus*, the complete process being thus a symbiotic one. The end products of cellulose decomposition are acetic, butyric, and lactic acids, which are oxidized to carbon dioxide and water by the denitrifying organisms. It is suggested that the decomposition of the cellulose may be brought about by an enzyme, cellulase.—A. P.—C.

**Perishing of Paper in Indian Libraries.**—J. J. Sudborough and M. M. Metah, *J. Indian Inst. Sci.*, iii, 119-226 (1920); *J. Soc. Chem. Ind.*, xl, 76A (Feb. 15, 1921).—Paper in Indian libraries, especially in plains stations such as Calcutta, Madras, and Bombay, will not withstand the climate and perishes very rapidly. This is more noticeable with papers prepared from

(Continued on page 42)

# We Are Resuming Production

Early in September we started operating our Naval Stores plant at Brunswick, Georgia, on part time.

Many manufacturers rely on Yaryan rosin and pure wood turpentine because our rosin is cleaner and more uniform, and because our turpentine meets higher specifications than the general run of naval stores products; it would entail a real hardship if these manufacturers were forced to return to other and less standardized materials.

Yaryan pine oil is so pre-eminently the leader in its field that a serious shortage would bring about wide-spread inconvenience and loss among users.

We are re-opening this plant now, when it can only be operated at a loss, because we recognize an obligation to keep our customers supplied. In the long run, we believe this service will bring returns commensurate with the high quality of our Naval Stores products.



## **HERCULES POWDER CO.**

Naval Stores Division, Wilmington, Del.

### SALES OFFICES

120 Broadway  
New York City

332 S. Michigan Avenue  
Chicago

Chronicle Building  
San Francisco

# **HERCULES**

# **Naval Stores**

*Produced Under Chemical Control*

## CURRENT PAPER TRADE LITERATURE

(Continued from page 40)

woodpulp and especially those in which the fibers have been weakened because of the different treatments to which they have been subjected. The addition of arsenic trisulphide as a preservative is useless, because although it preserves paper from the ravages of insects, it accelerates the decay of the fibers. Paper used for books which have to be preserved in stations like those of the Indian Plains should be prepared only from strong rag fibers, should have no distinct acidity, and should withstand a severe test in the folding machine. Its contents of rosin and filling material should be below certain fixed values. The rag fibers should not be weakened by prolonged digestion with alkali or by over-bleaching, and care should be taken to remove the last traces of bleaching agent and of free acid.—A. P.—C.

**To Make Paper Pulp in Portuguese East Africa.**—*J. Soc. Chem. Ind.*, xl, 52R (Feb. 15, 1921).—A concession has been granted to the Cia. Portuguesa de Papel Mozambique giving it the exclusive right to prepare pulp from native and foreign vegetable matter, and to manufacture paper and parchment in the province of Mozambique for a period of ten years. The company is to erect a mill at Ressano Garcia, near the Transvaal frontier, and utilize Tambuki grass, and possibly wood, as raw material. The syndicate which holds the concession for the manufacture of pulp from baobab trees in the Quilimane and Tete districts has been unable to sell its products to paper manufacturers in the United Kingdom, in spite of favorable technical reports. Some time ago it contracted to supply a Norwegian pulp company with 40,000 tons of material on a royalty basis, and since it has received numerous inquiries from Germany and the United States.—A. P.—C.

**Production of Cellulose Acetate.**—*W. Leigh Barnett, J. Soc. Chem. Ind.*, xl, 8-10T (Jan. 31, 1921). The use of a mixed catalyst of chlorine and sulphur dioxide gives satisfactory results with the minimum amount of change in the parent complex. By suitably choosing the conditions for the reaction it is possible to obtain a great variety of pure esters, possessing valuable properties of strength, film flexibility, transparency and solubility. Acetylation proceeds at any temperature, and as no signs of discoloration occur, owing to the great ease of control of the reaction, no special precautions are necessary. The combined use of chlorine and sulphur dioxide is equally efficient in producing other esters, such as the butyrate, the benzoate (using benzol chloride in acetic acid), etc.—A. P.—C.

**Groundwood Pulp Determination.**—*M. G. Kotilasker, J. Soc. Dyers and Col.*, xxxvii, 11-3 (1921), *J. Soc. Chem. Ind.*, xl, 113A (Feb. 28, 1921).—The adsorption of para-nitraniline by mechanical woodpulp is constant under defined conditions, experiment indicating that pure mechanical woodpulp in thin slices treated with the reagent in the proportion of 2 Gm. to 40 to 60 Cc. of an approximately 0.1 percent solution in dilute hydrochloric acid shows in 6 to 24 hours a constant adsorption of 0.56 to 0.57 percent. The excess of para-nitraniline is determined by adding a known excess of titanous chloride to an aliquot portion of the solution, say 10 Cc., boiling to effect reduction, and titrating back the excess of titanous salt with standard solution of iron alum. By this means the mechanical woodpulp in an unknown sample can be determined with an error of not more than about 2 percent. The adsorption of para-nitraniline by jute also shows a constant figure of 0.35 to 0.37 percent.—A. P.—C.

**Extraction of Sulphite Waste Liquors with Ether and Benzene.**—*B. Holmberg, Svensk Kem. Tidskr.*, xxxii, 56-67 (1920), *Chem. Zentr.*, cix, IV, 753 (1920), *J. Soc. Chem. Ind.*,

xxxii, 113-4A (Feb. 28, 1921).—The extraction of sulphite liquor with ether yields a fatty substance and a white, crystalline compound, tetra-*n*-sulphite liquor lactone ( $C_4H_8O_4 \cdot OCH_3$ ). The latter forms square plates or flat prisms, melting-point 250-225° Cent., soluble in ether, alcohol, and methyl alcohol, very soluble in acetone, but only slightly soluble in water. Sulphuric acid converts the lactone into a monosulphonic acid, on subsequent treatment with water a hydroxyacid is formed. The lactone is only slowly dissolved by sodium carbonate solution, but is readily dissolved in sodium or potassium hydroxide, from which it is precipitated by carbon dioxide.—A. P.—C.

**Action of Sulphurous Acid on Fermentation by Yeast.**—*R. Hagglund, Biochem. Z.*, ciii, 299-305 (April 15, 1920); *Chimie et Industrie*, v, 158 (Feb. 1921).—The toxic action exerted by sulphurous acid on the fermenting power of yeast must be attributed to the undissociated portion of the acid. The inhibitory power reaches a maximum for a 0.007 normal solution of  $SO_2$  for 1 Gm. of yeast in 25 Cc. of liquid. At a concentration of 0.001 normal fermenting power of the yeast is increased. The inhibitory action of sodium sulphite is comparable to that of potassium sulphate. The inhibitory action exhibited by sodium sulphite when added to yeast is but temporary. Potassium sulphate favors fermentation, which increases 25 percent in a 0.2 normal solution of potassium sulphate. According to Euler, there is an adsorption phenomenon (Euler and Cassel, *J. Physiol. Chem.*, lxxxvi, 122, 1913).—A. P.—C.

**Elastic Properties of Gelatin Jellies.**—*S. E. Sheppard and S. S. Sweet, J. Am. Chem. Soc.*, xliii, 539-47 (March, 1921).—Measurements of the rigidity of gelatin jellies are given, showing that the jellies follow Hooke's law nearly up to the breaking point.—A. P.—C.

**Recovering Newsprint.**—*Charles Baskerville and Reston Stevenson, J. Ind. & Eng. Chem.*, xii, 213-4 (March, 1921); *Paper*, xxviii, 4 (March 30, 1921).—For every ton of old newspapers to be treated about 60lb. of caustic soda or 200lb. of soda ash with about 100lb. of American fuller's earth, are placed in the pulping machine and heated to 50° Cent. The paper should be perfectly pulped, and thoroughly washed, requiring about one-fourth less water than for bookstock. The product may be bleached by treatment with a solution of  $SO_2$ , which gives a product as white as, if not whiter than, the original unprinted paper. In practice the bleaching has been accomplished in fifteen minutes in the cold with a consumption of 20lb. of  $SO_2$  per ton of old papers.—A. P.—C.

**Regenerating Book Paper.**—*Charles Baskerville and C. M. Joyce, J. Ind. & Eng. Chem.*, xii, 214-5 (March 1921); *Paper*, xxviii, 4 (March 30, 1921).—In reclaiming bookstock an alkaline solution is required to saponify the saponifiable oil in the vehicle of the printer's ink; certain solvents, such as kerosene or gasoline tend to loosen the ink by dissolving the binder, and a solvent, e. g., pine oil, for the rosin used in sizing the paper. The authors use borax (10lb.), soap (10lb.), kerosene (2 gals.), and pine oil (2 gals.) to 2,000lb. of bookstock in water to make a 3 to 6 percent pulp. The stock is soaked and gently pulled apart in a beater thus reducing the mechanical injury to the fibers to a minimum. Time is saved by heating up the mixture to 75° to 90° Cent. by introducing live steam. After pulping, which requires one hour or less, depending upon the machine used, the ink and chemicals are washed away by one of several well-known washers. The pulp may

(Continued on page 44)

# MICROMETER CALIPERS

## Automatic

Desk size 8 inches by 9 inches—6 in. Dial.

Measuring accurately from one thousandth up to 250 thousandths of an inch. Made in U. S. A.

---

---

# CADY AUTOMATIC PAPER *and* BOARD SCALES

Size 19x22 inches.

Our Paper Scales gives the weight automatically of any sheet of Paper or Board weighing from one lb. up to 120 lbs. per ream of 480 sheets and 500 sheets and 500 sheets in kilograms.

---

Our Board Scales gives number of sheets of size of sheet you are weighing it takes to make a bundle of 50 lbs.

---

Our Tag Board Scale weighs 500 sheet count from 5 lbs. up to 1000 lbs.

---

These machines are carried in stock by

**C. B. HEWITT & BROS., 16-24 Ferry St., New York**

---

**E. J. CADY & COMPANY**

**326 W. Madison Street**

**Chicago, Ill.**

## CURRENT PAPER TRADE LITERATURE

(Continued from page 42)

then be bleached or tinted as desired. A selected combination of the chemicals may be used instead of all four with selected lots of waste paper when the composition (including ink and binder) is known. A superior product of desired strength, length of fiber and cleanliness has been obtained by this process. (U. S. Patent No. 1,351,092.)—A. P.—C.

**Laboratory Thermometers.**—W. D. Collins, *J. Ind. & Eng. Chem.*, xiii, 240-1 (March, 1921).—Specifications proposed by the Committee on Guaranteed Reagents and Standard Apparatus of the American Chemical Society for three standard thermometers (20° to 150° Cent. in 1° intervals; 10° to 360° Cent. in 1° intervals; 5° to 105° Cent. in 0.2° intervals) are given, together with a few comments on the reasons which prompted the choice of these thermometers as standard apparatus and on a few of the details of the specifications.—A. P.—C.

**Characteristics of Cigarette Papers.**—Louis Schweitzer, *Paper*, xxvii, 27 (March 16, 1921).—Brief description of the different varieties of cigarette papers, of the properties required of a good paper (nature of rags to be employed, appearance, combustibility) and of the methods of increasing the combustibility of the paper.—A. P.—C.

**Substitutes for Coal.**—Emilio Damour, *Chimie et Industrie*, v, 11-7 (Jan., 1921).—The main characteristic common to wood, peat and lignite which are named as substitutes for coal, is the high content of moisture or combined water, which may reach 85 to 90 percent in the case of freshly extracted peat. This greatly decreases the "industrial calorific value" (defined as the calorific value obtained by means of a constant pressure bomb calorimeter in which the air is introduced at 15° Cent. and the products of combustion taken at 100° Cent.) and the temperature of combustion; so that in many cases under ordinary conditions it is not possible to obtain more than 40 percent of the utilizable energy of the fuel. The most obvious remedy is to dry the material. Methods are discussed for gasifying and recovering by-products. Though the problem of the utilization of these lower grades of fuels cannot be considered as completely solved, very appreciable progress has been made, and several plants in France are now working quite satisfactorily without any coal. By combining scientific forestry and cutting methods with modern furnace equipment, the saving effected can be raised from 10 to 15 percent to 40 to 50 percent.—A. P.—C.

**Molds and Wood Destroyers.**—*Paper*, xxvii, 26 (March 2, 1921).—In the early stages of their growth molds and wood destroying fungi sometimes have a similar appearance and there is no simple means by which the lumberman and wood users can separate them at sight. The characteristic feature of mold growth on wood is the fact that the minute threads which enter the wood do not bore into the wood fibers or dissolve them away, but pass through the spaces between the fibers or enter them through the natural openings, or pits, which are found in the walls of certain cells. The wood destroying fungi are able to send their threads right through the wood fibers, breaking down the cell walls and utilizing portions of this decomposed material as food. This action produces rot or decay. The principal economic loss caused by molds is through the staining or discoloration of the wood. No greater injury may be caused by the wood destroyers in their early stages.—A. P.—C.



**Notes on Bleach and Bleaching.**—Frank D. Libby, *Paper*, xxvii, 26 (March 2, 1921).—Brief outline of the development

of the use of chlorine as bleaching agent in the pulp and paper industry, with a description of the method of use of bleaching powder, liquid chlorine, and electrolytic bleach, and the comparison of the bleaching of rags and sulphite.—A. P.—C.

**CO<sub>2</sub> and Combustible Gas Recorder.**—Roland Moeller, *Paper*, xxvii, 24 (Feb. 16, 1921).—Furnace efficiency, as distinct from boiler efficiency, can be properly tested only by continuous gas analysis which not only measures the excess air present at all times, but also promptly detects and measures the presence of combustible gases in the flue whenever they appear. It is important to have not only a record of the CO<sub>2</sub> content of the flue gases, but also a means of detecting combustible gases practically as soon as they form. The Duplex Mono-Gas Analyzing Instrument, by means of which this object can be obtained, is described, and the accuracy and value of the records are discussed.—A. P.—C.

**Ventilation of Machine Rooms in the Paper Mill.**—H. S. Taylor, *Pulp and Paper*, xix, 183-8 (Feb. 17, 1921); *Paper*, xxviii, 1 (March 9, 1921).—Address delivered at the meeting of the Technical Section of the Canadian Pulp and Paper Association, Montreal, Jan. 20, 1921. Discussion in *Pulp and Paper*, xix, 299-300 (March 17, 1921).—The problem of the ventilation of paper mill machine rooms consists essentially in first removing the volume of moisture-laden air rising from the machines and replacing the volume removed from outside sources, and, secondly, insulating the under side of the roof slab with air of a temperature that will be above its dew point. Two methods can be used for removal of the air: natural draft and positive exhaust. The former is serviceable in machine rooms where production is low, but has not the capacity for the removal of large volumes required under modern practice. Two methods can also be used for supplying replacement air: through doors, windows or other specially designed openings, or else through a properly designed blower system. For raising the temperature at the under side of a slab, roof structure, and walls, there are two methods available: through direct radiation suspended from the slab, or through heating the replacement air. The relative merits and estimated cost of installing and operating (in a 2-machine, 100 t. room) positive removal and replacement system with heat supplied through the incoming air and from direct radiation, respectively, are discussed, and the superiority of the former is shown. For the proper removal of the moisture-laden air a hood of proper design is absolutely necessary. For a room housing more than two machines vertical uptakes must be used; and even with a two-machine mill the vertical uptakes are preferable as the discharge is direct and cost of installation less. Each hood should have three uptakes, each 6 ft. in diameter, the two nearer the wet end of the machine being provided with fans, while the one at the drier end of the hood can be designed for natural draft. The exhaust and replacement fans should be so adjusted that the latter furnish a little more air than the former eliminate, so as to keep the machine room under a slight pressure. In this way openings in floor and walls cannot in any way cause any interference with proper operation of the ventilating equipment, whereas, should this condition of pressure be changed to one of partial vacuum, through the capacity of the exhaust fans being greater than the capacity of the delivery fans, a rush of air through any opening will result. This intruding air during the winter season will be of extremely low temperature if from the outside, and if from the basement will be laden with moisture in addition to its low

(Continued on page 46)

# INTERSTATE Pulp & Paper Co.

(INCORPORATED)

1050 GRAND CENTRAL TERMINAL,  
NEW YORK, N. Y.

# P U L P AND P A P E R

*Domestic and Export*

Newsprint



Book

Writing

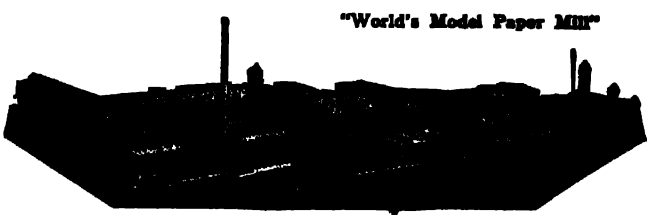
Bond

Wrapping

Ledger

"World's Model Paper Mill"



**Genuine Vegetable Parchment**


Pure Waxed Papers

K V P Bond—White and 6 Colors

**KVP Manifold-Sub. 8 and 10**

*Write for Samples*

"World's  
Model  
Paper Mill"



**Kalamazoo Vegetable Parchment Co.**  
 Kalamazoo, Michigan, U. S. A.

# THE HYTOR VACUUM PUMP FOR FLAT BOX SERVICE

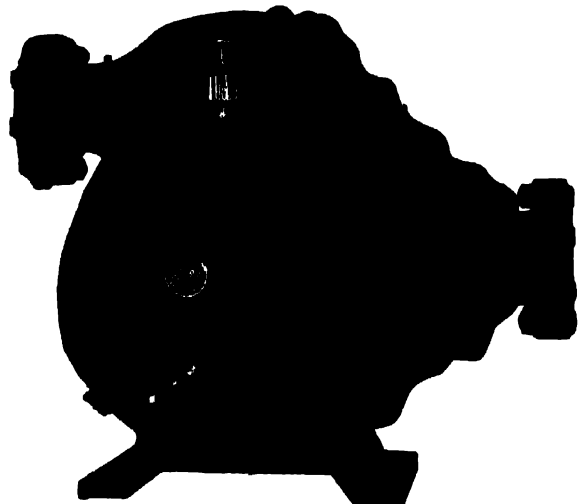
Vacuum  
Produced  
Absolutely  
Without  
Pulsation

---

No Vibration

---

Saves Wires



Only One  
Moving Part

---

No Rods, Pistons,  
Crank Shafts,  
Loose Moving Parts,  
and No Gears

---

No Expert Attendance

*Western Representative*  
**T. H. SAVERY, Jr.**  
1718 Republic Bldg.,  
Chicago, Ill.

## THE NASH ENGINEERING CO.

WILSON POINT ROAD  
SOUTH NORWALK, CONN.

*New England  
Representative*  
**G. H. GLEASON**  
141 Milk St.  
Boston, Mass.

## BEATER ROOM HAZARDS\*

By CHARLES WALKER, EMPLOYMENT MANAGER, EASTERN MANUFACTURING COMPANY, BANGOR, ME

The degree of safety attainable in the paper mills of today is dependent upon three things: The Superintendent of the mills, the type of man hired for the beaters, and the safety engineer.

The Superintendent must be heart and soul in favor of safety work so that there will be no opposition to spending the small amount of money necessary to keep a beater room safe. The men selected for beater work must be of a type high enough to appreciate the value of the work we are preaching. The safety engineer must be big enough to put across safety policies in face of severe oppositions.

The presence of these three factors will be sufficient to enable the safety engineer to reduce beater room hazards to a minimum and almost to a negative quantity.

### Modern Beating Engines Nearly Fool Proof

You all realize, I think, the present day beating engines are very nearly fool proof. Mr. J. J. Sullivan, who is one of the pioneer paper makers of the country, asserts that he knows of no case where a man has been killed or seriously injured by a beating engine, except when the beater rolls were being removed by repair crews.

Minor dangers are always present, like poor relatives, and it is against these that we safety engineers must be continually fighting. Pulley-driven lines, for instance, must be most carefully guarded; motor driven lines must be ever so carefully watched for the beater room being more or less wet is a wonderful conductor, one man only should be permitted to wield a fork in cases where shavings or centrifuge is dug from boxes. I bear witness to this fact on the little finger of my right hand.

Another custom formerly practised was that of weighting down the valve when the next beater on the line was being dumped. This should never be done, for in England there was such a case, and the weight went under the roll, the roll jumped off snapping a belt which killed two men.

You should see to it that your stock and machine chests are adequately protected. You should see to it that the covering over them is sufficient to prevent men from falling in. You should be particularly sure that all gears are covered.

### Slipping on Wet Floors a Cause of Accidents

Probably the greatest flaw in the old time beater room is their wooden floors covered with boiler plate in the trucking alleys. I venture to state that there have been more beater room accidents caused by slipping on wet plates, causing ruptures, sprained ankles, and straining of back muscles, than any other cause.

If you are building new beater rooms advocate concrete floors with inlaid steel reinforcements for they will pay for themselves many times over on the insurance rates.

Trucks designed so that leverage is created by two or three men pressing down on the handle in order to raise a platform from the floor should be carefully inspected by a mechanic every few days, for when these handles fly back, as they frequently do, that man who is unfortunately in its path is surely liable to injury and would better be back in the front line trenches, where I hope a good part of your beater men have been.

Some of you are perhaps using electrically driven trucks for the transportation of beater room material. Very little may be done to better this modern phase of trucking except to see that bells are in good conditions and traffic rules are well defined.

### Tanks Must Be Guarded

Elevated tanks of all varieties, such as alum, size, and water containers must be sufficiently guarded by railings, and platforms with toe boards. The ladders leading up to them should be of

steel wherever there is no danger of these becoming electrified.

Many strange accidents take place in the beater department of a paper mill, most of them due to carelessness, but the most unique one we have on record is the case of a man who was washing out a beater with a line hose. Now in his enthusiasm to get the beater clean he allowed the end of the hose to get under the beater roll which was running at the time. Inch by inch he contested the destruction of the hose until at last he was pulled from his precarious position on the edge of the beater into two feet of water and if he had not been obliged to strike out with his arms would probably have met the fate of the hose.

### The Best Move for Safety

Most of you people plan your campaign for getting your policies across, but we have found that the best move for safety lies with the employment manager. That much loved and much hated individual has the power to either make or break safety first, as his poor judgment in hiring men who are unable to comprehend what we are all working for has caused thousands of dollars in accident claims and vice versa.

May I give you just one piece of advice regarding this subject? When you go home make your employment manager hire men who will be safety first men from the time they come to work until the time they go home and you will find that 75 per cent of your troubles will end right there.

Let us all try to have nothing hinder our teaching SAFETY FIRST and ALWAYS to the men under

## CURRENT PAPER TRADE LITERATURE

(Continued from page 44)

temperature. The more insulated the building structure itself is against outside temperature, the less steam is required from the ventilating system, and the lower the cost of operation. With a system of blowing heated air directly within the drier section, the volume of air distributed by such a system can be deducted from the volume required for machine room ventilation, as the volume of replacement air is simply a total of that distributed through a simple or multiple system.—A. P.—C.

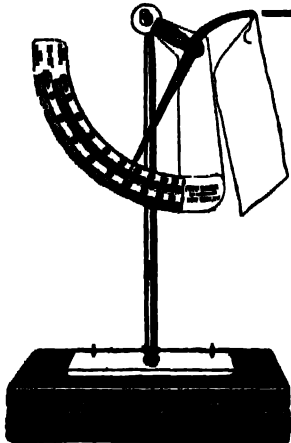
**Paper Standardization.**—*Paper*, xxvii (March 9, 1921)—Discussion emphasizing the need of standardization of sizes in the manufacture of paper.—A. P.—C.

**Paper Standardization from Printer's Standpoint.**—N. J. Werner. *American Printer* (Feb., 1921); *Paper*, xxvii, 2 (March 16, 1921)—Reasons are given in favor of the following sizes: 19 x 27 for writings, bonds, etc.; 22.5 x 32 for writings, bonds, cardboards, etc.; 27 x 38 for book papers and double size writings; 38 x 54 for double size book papers; 45 x 64 for double size book papers, and of the gradual elimination of the undesirable sizes so as to cause the fewest manufacturing changes.—A. P.—C.

**Uniform Digester Chip Charges.**—*Paper*, xxviii, 1 (March 9, 1921), *Chem Met Eng*, xxiv, 612 (April 6, 1921); *Pulp and Paper*, xix, 382 (April 7, 1921)—Data obtained in a mill-scale study by the U. S. Forest Products Laboratory indicate that the digester charge is, in most instances, a reliable unit for pulp mill operations, provided the operation is uninterrupted and the soundness and species of wood do not vary.—A. P.—C.

**Uniform Cooking Acid.**—*Paper*, xxviii, 1 (March 9, 1921).—Very brief description of a series of satisfactory controls for obtaining a uniform cooking acid: Crandon melted sulphur feed attachment for rotary sulphur burners, automatic draft control for the prevention of sublimation of sulphur, Crandon acid control.—A. P.—C.

\*Delivered at meeting of the Paper and Pulp Section's Tenth Annual Safety Congress of the National Safety Council, Boston, September 26-30, 1921.



**MADE IN U. S. A.**  
**The Baker Universal  
 Paper Scale**

Collapsible, for Desk or Pocket. A small piece of paper indicates automatically ream weights per 480 and 500 sheets in sizes 24x36, 20x30, 17x22, 25x38 or any size desired. A scale for every purpose.

**FRED BAKER**

*Manufacturer of Precision Paper Scales*  
**34 West 28th St., New York City**  
*Established 1917*  
 Phone: Chelsea 9135-9136

Established 1895

**DANIEL M. HICKS**  
 (INCORPORATED)

**PAPER MILL  
 SUPPLIES**

**200 Fifth Ave., New York**



**Standardize**

your requirements for  
 Grease-proof paper on  
 tested quality.

The well-known brands Purity and Berkshire will meet all requirements a high grade Grease-proof paper is subject to.

Many of the largest paper distributors of the country have standardized on Mountain Mill products.

Why don't you?

*We will be glad to mail you a full line of samples.*



**Mountain Mill Paper Co.**

**LEE, MASSACHUSETTS**

Chicago Sales Office: 1148 First National Bank Building  
 New York Office: 225 Fifth Avenue

**"AMERICAN"**

**PAPER MAKERS TWINE**

**WALL PAPER TWINE**

**FINE AND COARSE POLISHED TWINES**

**"AMERICAN" BRAND MANILA ROPE**

**"AMERICAN" BRAND TRANSMISSION ROPE**

**TUBE ROPE**

**HAY ROPE**

The name "AMERICAN" as applied to cordage means "more value in every way." Send for copy of our General Catalogue, Prices and samples. Address Department M.

*Largest Makers of Commercial Twines and Rope in the World*

**AMERICAN MANUFACTURING CO.**

**NOBLE AND WEST STREETS, BROOKLYN, NEW YORK CITY**

**CORDAGE**

## PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending August 31, 1921, and for the Eight Months Ended August 31, 1921, as Compared with Corresponding Months of Two Previous Years.

IMPORTS—PAPER											
PAPER AND MANUFACTURES OF.		August				Eight Months Ended August 31					
		1920		1921		1919		1920		1921	
		Quantity	Value	Quantity	Value	Quantity	Value.	Quantity.	Value.	Quantity.	Value.
Books, Music, Maps, Engravings,	Free		\$481,734		\$318,408		\$1,001,104		\$3,521,770		\$2,984,553
Etchings, Photographs, and other	Dut		197,930		107,020		687,120		1,806,082		1,455,048
Printed Matter											
Decalcomania paper, not printed	Free		18,607		9,572		88,642		98,918		162,330
Lithographic Labels and Prints (except											
Post Cards).	lbs. Dut	127,151	86,818	129,338	66,701	97,802	114,700	437,515	315,887	797,401	537,910
Paper Hangings	Dut		21,788		21,493		46,313		240,132		266,854
Photographic	lbs Dut	97,520	24,399	219,967	42,304	234,252	107,368	759,305	220,383	1,213,806	246,078
Printing Paper—											
News print	lbs. Free	147,026,005	7,236,614	148,422,772	6,707,612	815,133,151	27,875,447	920,040,324	39,083,308	981,307,135	54,877,806
All other	lbs Free		182,400		10,971		97,806		1,516,674		1,224,107
Post Cards, Souvenir	Dut		12,169		8,927		17,000		44,258		76,477
Pulp board, in rolls, not laminated	lbs Dut	9,146,094	294,018	1,437,378	25,000	55,222,692	1,350,500	50,300,787	1,451,542	26,918,915	780,080
Surface-coated	lbs Dut		51,173		22,231		10,577		24,300		361,221
Wrapping	lbs Dut		541,418		58,126		980,620		40,187		11,006
All other	Dut				270,084		249,403		901,667		1,540,024
Total Paper, and Manufactures of.			\$8,769,982		\$7,701,240		\$33,584,509		\$10,470,180		\$14,330,230

## CRUDE PAPER STOCK

Rags (except woolen) lbs. Free	24,501,212	\$864,184	10,923,511	\$168,642	30,250,011	\$947,680	215,638,570	\$7,451,609	68,919,822	\$1,208,742
All other kinds of paper stock lbs. Free	23,017,048	1,062,971	7,810,883	138,531	57,543,498	1,798,903	175,708,104	6,585,112	63,039,086	1,414,038

## WOOD PULP

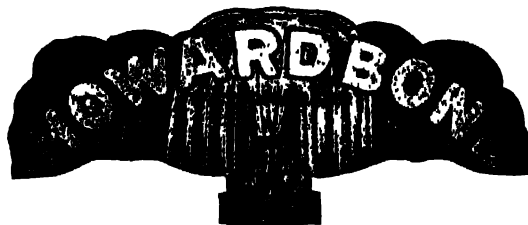
Mechanically ground tons. Free	30,300	\$2,892,109	14,647	\$371,153	100,607	\$2,066,405	131,874	\$8,129,448	64,634	\$2,386,288
Chemical—										
Unbleached—										
Sulphate tons. Free	18,218	\$2,006,564	8,124	\$903,912	65,118	\$4,465,902	99,522	\$4,553,433	52,860	\$4,542,960
Sulphite tons. Free	35,551	5,005,471	10,676	1,046,553	95,420	8,153,730	104,021	20,701,082	81,884	7,392,781
Total . . . . . tons	53,769	\$7,132,085	24,800	\$1,650,467	100,534	\$12,610,632	203,543	\$20,264,515	134,770	\$12,238,761
Imported from—										
Norway . . . . .	1,547	\$200,131	40	\$4,280	2,040	\$275,271	1,064	\$311,293	1,542	\$146,068
Sweden . . . . .	8,203	1,190,012	8,671	553,150	12,704	1,280,818	61,914	5,445,900	28,284	2,073,925
Canada . . . . .	42,006	5,308,916	11,019	844,347	143,745	10,864,893	217,120	21,640,633	85,146	7,414,232
Other countries . . . . .	2,011	283,376	4,170	249,600	1,984	219,655	12,545	1,450,718	19,798	1,951,432
Bleached—										
Sulphate tons. Free	3,028	\$611,014	12,308	\$1,130,583	2,805	\$314,261	12,052	\$1,504,228	3,505	\$435,382
Sulphite tons. Free	10,976	2,082,543	12,308	\$1,130,583	14,756	1,724,108	65,733	9,402,085	47,729	5,832,872
Total . . . . . tons	14,004	\$2,693,557	12,308	\$1,130,583	17,621	\$1,938,429	77,785	\$10,906,913	51,234	\$6,268,254
Imported from—										
Norway . . . . .	1,497	\$299,483	607	\$110,384	1,000	\$172,818	8,097	\$1,294,509	4,975	\$671,872
Sweden . . . . .	8,609	507,195	995	\$5,846	1,088	147,284	8,281	1,118,984	2,051	\$29,085
Canada . . . . .	7,918	1,415,578	7,580	\$76,920	14,555	1,519,323	54,871	7,559,271	31,515	\$3,671,837
Other countries . . . . .	1,680	371,801	8,125	\$57,883	978	100,004	6,566	978,199	11,858	1,455,880

## CHEMICALS AND OTHER PAPER MAKERS' MATERIALS.

Colors or dyes, nes lbs. Dut	222,770	\$404,300	178,353	\$331,712	1,129,050	\$1,786,419	2,132,268	\$3,083,611	2,130,871	\$3,592,468
Imported from—										
Germany . . . . .	62,803	\$54,115	44,346	\$140,950	18,518	\$15,044	581,502	\$594,898	609,846	\$609,008
Switzerland . . . . .	138,077	299,101	88,074	137,008	819,045	1,415,848	1,000,156	2,085,154	1,081,040	1,408,540
United Kingdom . . . . .	15,084	34,239	35,556	36,193	259,274	315,948	200,861	220,854	100,856	230,989
Other countries . . . . .	6,806	10,785	10,377	11,472	26,213	38,970	250,724	242,705	219,629	285,294
Indigo—										
Natural . . . . . lbs. Dut	29,098	\$63,510			152,386	\$100,506	75,870	\$112,959	33,405	\$63,187
Synthetic . . . . . lbs. Dut	15,307	35,139	6,055	\$21,076	329,735	219,353	682,004	429,419	33,296	\$7,540
Alizarin and alizarin dyes . . . . . lbs. Dut	6,806	4,159	22,367	49,304	12,422	16,751	815,241	148,898	394,458	\$10,515
Lactarene or Casein . . . . . lbs. Free	1,320,775	151,380	732,368	44,340	8,910,448	1,030,942	17,239,855	1,984,171	7,302,706	705,716
Lime, Chlor. of, or bleaching powder, lbs. Dut	81,702	884	922,117	22,425	176,078	5,353	710,009	9,313	4,251,155	101,343
Magnesia, not purified . . . . . lbs. Free	7,754	91,078	8,883	118,079	5,099	150,828	25,410	449,830	33,902	477,388
Potash, Hydrate of . . . . . lbs. Free	82,084	24,159	848,575	35,938	481,200	132,668	1,884,761	366,732	5,664,302	\$11,439
Sulphur or Brimstone . . . . . tons. Free		6		6	74	1,815	44	1,710	2	113
China clay or kaolin . . . . . tons. Dut	46,521	501,565	10,249	\$9,637	107,654	1,344,224	208,824	2,222,908	74,880	\$80,750

(Continued on page 50)

Howard Bond



Howard Ledger

**"The Paper of Many Uses"***Manufactured by***THE HOWARD PAPER COMPANY,****Urbana, Ohio**

Are you finding difficulty in properly regulating the pressure on your guard-board? A Suction Couch roll will entirely eliminate not only the guard-board but the top couch roll, jacket, arms, levers, weights and all their inherent troubles as well.

**THE SANDUSKY FOUNDRY & MACHINE COMPANY**  
SANDUSKY, OHIO

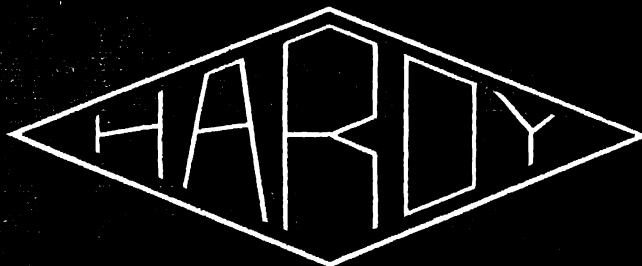
## Felt Test—Lowest Cost per Ton

If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts, for ORR felts will produce the lowest cost per ton. They "stand up" under severe usage. Orr durability is acknowledged everywhere. Their strength and long life are as dependable as their reliability and quality.

In the 32 grades of Felts and Jackets we can match your most exacting demands. Tell us the kind of paper you desire to make, and we will send you samples of felts that will economically serve you and help you to produce paper at lowest cost per ton.

**THE ORR FELT & BLANKET COMPANY, Piqua, Ohio**

**WILLIAM A. HARDY & SONS COMPANY, Fitchburg, Mass., U.S.A.**



## PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

(Continued from page 48)

PULP WOOD										
PAPER AND MANUFACTURES OF		August				Eight Months Ended August 31				
		1920	1921	1920	1921	1919	1920	1921	1920	1921
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
Pulp Wood -										
Rough	cords Free	55,682	\$702,144	16,686	\$202,451	175,909	\$1,658,102	147,835	\$1,781,021	202,408
Peeled	cords Free	98,030	1,201,648	42,440	472,437	563,120	5,486,142	444,863	5,197,755	622,319
Rosined	cords Free	21,300	451,778	12,658	101,637	95,000	852,401	68,971	1,212,151	65,866
Total	cords	175,101	\$2,355,570	71,784	\$829,525	834,029	\$7,997,118	661,669	\$8,190,927	890,593

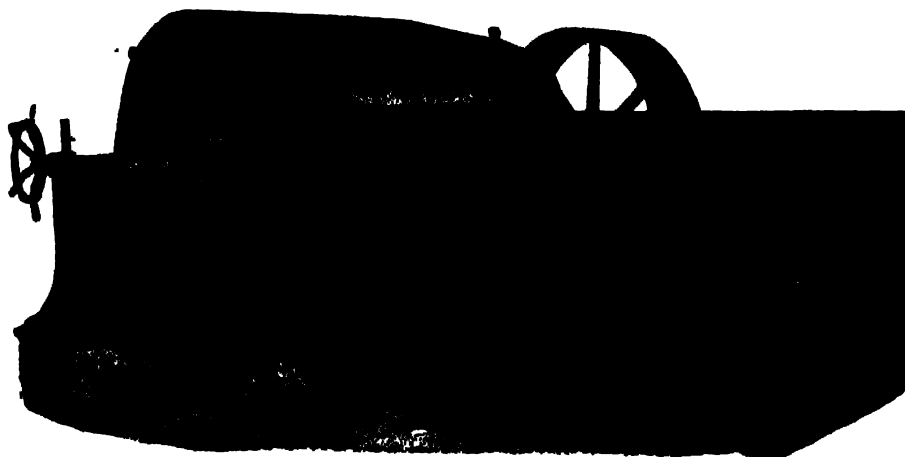
EXPORTS—PAPER										
Base			\$157,000		\$44,080		\$1,011,099		\$1,534,318	\$616,929
Books, Music, Maps, Engravings, Etchings, Photographs and Other Printed Matter			1,077,180		1,751,396		11,340,296		15,449,067	14,001,510
Boxes and Cartons			106,221		102,148		885,214		1,386,024	880,923
Carbon Paper			69,171		21,842		680,016		674,387	854,084
Cash register and adding machine paper			21,631		0,393		109,879		102,204	125,408
Paper Band and Strawboard			401,106		80,471		3,531,615		7,215,719	1,813,444
Paper Happings			10,775		19,296		570,109		848,542	400,417
Phone Cards			69,099		29,079		1,100,910		664,181	492,719
PRINTING PAPER—										
News Print	lbs	8,809,948	\$688,663	2,521,145	\$141,781	177,279,280	\$7,061,701	63,088,011	\$3,946,907	24,300,200
Exported to—										
Canada		88,778	92,827	55,670	\$1,097	461,496	\$15,042	1,061,924	\$81,010	440,722
Cuba		2,900,641	117,701	1,929,952	105,709	1,416,155	561,841	9,361,985	551,896	11,891,420
Argentina		3,502,510	258,789			4,184,597	1,749,530	20,076,990	1,501,701	4,262,008
Brazil		224,467	37,882	19,110	1,750	29,702,011	1,318,833	3,230,324	210,286	184,744
Uruguay		192,104	0,613			5,616,561	243,160	1,281,025	96,863	796,697
Other South America		789,775	68,191	65,156	4,399	8,679,738	104,671	2,694,615	217,695	851,394
China		691,690	60,184	30,839	1,965	6,099,067	304,186	4,780,002	415,657	2,221,600
Australia		183,179	12,015	188,053	11,511	10,553,935	171,844	9,000,101	91,676	329,984
Philippine Islands		970,201	86,737	238,220	16,093	2,918,200	111,615	9,019,164	193,618	2,462,407
Other countries						34,660,591	2,682,818	8,071,499	612,196	2,846,195
All other	lbs	5,779,611	\$911,181	1,991,070	\$205,938	127,811,112	\$10,105,960	60,636,730	\$7,911,678	34,403,168
Exported to—										
Greece		110,979	\$14,097	10,495	\$2,995	1,138,919	\$176,158	1,678,419	\$40,711	103,309
United Kingdom		88,001	21,286	98,959	28,367	1,897,174	462,115	1,738,296	559,340	256,305
Canada		16,096	57,042	20,959	98,367	3,784,089	350,315	1,201,951	162,410	2,810,020
Mexico		81,993	18,817	602,695	64,961	6,464,614	738,171	9,707,781	1,311,476	3,781,053
Cuba		1,780,916	238,173	218,617	13,198	23,811,191	2,417,100	10,074,860	1,317,752	6,509,704
Argentina		61,915	50,516	4,011	651	12,171,156	1,258,572	4,401,236	697,827	1,112,644
Brazil		588,117	105,611	37,164	6,778	4,251,112	528,261	818,723	106,771	216,864
Chile		1,110	270	8,170	1,107					685,055
Colombia				41,253	4,479					919,059
Peru		40,879	8,353	29,358	4,610	1,095,200	144,774	549,479	70,043	689,220
Uruguay						2,945,797	946,181	960,509	120,313	297,062
Venezuela				71,514	2,477					408,117
China		296,617	50,755	48,952	6,278	5,609,762	776,681	3,980,003	476,212	1,014,383
British India		513,616	65,236	119,318	11,201	3,823,741	118,315	3,164,194	384,868	332,652
Dutch East India				640	110					1,686,251
Japan		149,733	16,032	175,677	19,881	19,160,479	2,151,719	6,121,587	721,176	4,537,766
Australia		426,571	68,238	100,301	8,417	21,685,106	2,067,843	2,600,041	335,234	2,651,314
Philippine Islands		117,873	13,895	57,077	5,314	4,408,317	542,958	1,793,024	220,703	3,002,190
Other countries		1,020,718	159,011	294,298	29,017	11,018,520	1,214,869	7,532,521	1,003,639	507,272
Tissue and Toilet Paper			\$177,411		\$71,296		\$1,449,874		\$1,853,531	\$623,188
Towel and Napkins			36,034		15,707		118,668		221,639	124,006
Wax Paper			38,707		3,144		482,583		220,201	99,408
Wrapping Paper	lbs	4,243,697	523,412	2,116,297	135,618	53,321,982	4,011,866	42,186,303	4,416,520	1,798,403
Writing Paper and Envelopes			922,990		146,019		11,007,687		5,250,734	3,631,943
All other paper			863,212		304,282		6,420,202		6,674,463	4,473,083
Total Paper and Manufactures of			\$6,378,849		\$3,171,192		\$16,011,124		\$64,383,801	\$37,008,608

## WOOD PULP AND PAPER STOCK

Paper stock	lbs	10,150,226	\$360,284	4,011,080	\$50,001	28,613,101	\$752,705	68,840,342	\$2,045,178	21,127,427
Wood Pulp	tons	1,467	66,994	1,360	75,975	22,577	1,020,608	18,316	1,590,000	16,884

## MISCELLANEOUS ITEMS

Rosin	blbs	112,608	1,659,067	156,960	680,550	712,317	11,535,941	702,747	14,000,561	528,806
Exported to										
Belgium				6,088	\$4,209					12,618
German				30,351	124,306					79,890
Italy		664	\$11,007	3,503	15,181	18,150	\$298,077	20,390	\$649,979	6,758
Netherlands		265	7,750	2,626	10,190	21,571	940,408	3,705	65,403	8,022
Norway		9	110	40	166	6,631	100,555	8,556	169,110	214
Sweden		6,575	99,965	3,319	12,753	13,425	214,202	37,451	647,278	6,939
United Kingdom		42,588	617,490	28,333	117,601	948,846	5,805,314	125,257	2,132,212	88,569
Canada		9,181	150,542	4,519	25,039	34,680	408,890	75,547	1,400,716	37,868
Cuba		4,231	82,408	864	8,752	16,118	217,398	19,011	861,960	12,146
Argentina		25,050	474,599	28,084	118,960	80,908	1,252,040	100,206	1,780,974	105,413
Brazil		10,443	190,054	13,050	67,971	80,570	1,273,034	110,354	2,076,508	55,048
Uruguay		2,386	35,360	2,705	11,999	18,908	279,047	20,445	384,481	14,051
Dutch East Indies		3,075	63,390	9,972	52,837	11,592	101,298	30,970	749,505	22,914
Japan		803	11,500	10,920	46,629	22,535	158,358	92,208	1,701,535	40,202
Australia		945	19,150	3,925	16,132	7,667	80,018	44,674	885,649	18,089
Other countries		5,255	86,159	6,940	33,501	45,595	647,624	87,979	1,658,083	23,583
Sulphur or Brimstone	tons	40,075	\$825,505	41,466	\$519,489	87,027	\$2,019,606	351,605	\$4,815,883	189,399
Paper and Pulp Machinery			207,805		153,843		2,885,091		1,473,827	1,994,849



## Dilts Machine Works, Inc.

FULTON, N. Y., U. S. A.

Manufacturers of

**BEATING ENGINES  
WASHING ENGINES  
BREAKING, BLEACHING  
and MIXING ENGINES  
Fly Bars—Bed Plates  
Machine Knives**

## The Lockport Felt

Use a Lockport *Cylinder Bottom* and  
*Top* combination for *Board* and watch  
your *Felt Cost*

ASK THE MEN WHO RUN THEM  
YOURS FOR SERVICE

**LOCKPORT FELT COMPANY**  
NEWFANE, N. Y.

## The John W. Higman Co.

29 Broadway

New York City

**QUALITY  
CLAYS**

**FOR ALL PURPOSES  
ENGLISH AND AMERICAN**

## Perforated Metal Screens For Pulp and Paper Mills

STEEL, COPPER, BRASS, BRONZE  
and other Alloys

punched for Centrifugal and  
Rotary Screens, Pulp Washers,  
Drainer Bottoms, Filter Plates, etc.

**CHARLES MUNDT & SONS**  
53-55 FAIRMOUNT AVE.



.008 inch Round



$\frac{1}{4} \times \frac{1}{2}$  inch Slots  
JERSEY CITY, N. J.

**WE** specialize in durable Fourdrinier  
Wires and Cylinder Wires in any  
metal desired up to and including 120 mesh  
in plain woven, double warp, triple chain,  
and twisted weaves.

Save two-thirds the cost and three-quarters  
of the expense of putting on brass and bronze  
wires by using our nickel alloy wires.

**Joseph O'Neill Wire Works**

Port Chester, N. Y.

Established 1906

## EMERSON MANUFACTURING CO. LAWRENCE MASS.

See the Second-Hand Machinery ads and note the  
ABSENCE of

**EMERSON  
BEATING ENGINES**

They seldom wear out and are never thrown out.  
PERFECT CIRCULATION. NO "PADDLING."

**The "EMERSON" JORDAN**

does its work with half the power required by others of no  
greater capacity.

**WRITE FOR DETAILS**



---

---

**Now Out and All Advance Orders Filled**

---

---

**The New 1922 Edition**  
**of**  
**Lockwood's Directory**

---

---

**of the**  
**Paper and Allied Trades**

An encyclopedia of the Paper and Pulp Industry and Allied lines, thoroughly revised and up-to-date. Its contents include complete lists of

**PAPER AND PULP MILLS, ALSO CLASSIFICATION OF THEIR PRODUCTS, MAKERS OF PAPER SPECIALTIES, GENERAL PAPER MERCHANTS, PULP, RAG AND PAPER STOCK DEALERS, CONVERTERS OF PAPER, MILL OFFICIALS AND THEIR CONNECTIONS, WATER-MARKS, BRANDS, STATISTICAL INFORMATION, TRADE ASSOCIATIONS AND AUTHENTIC LIST OF WHOLESALE AND RETAIL STATIONERS.**

**Price \$7.00**

**Express Prepaid**

*Send in Your Order Now and Reap Prompt Benefit*

---

---

**Lockwood Trade Journal Co., Inc.**  
**10 East 39th St.,** **New York**



**C**UT down excessive wrapping paper investment. Why carry two wrapping paper lines for one wrapping paper purpose?

## MOSINEE

presents a perfect wrapping paper, weight and strength for each wrapping purpose. Made in all weights, from 15 lb. to 100 lbs. basis. The one complete, standardized and economical line of wrapping paper sold.

## MOSINEE KRAFT

*"The Wrapper That Delivers the Goods"*

L. H. BOGART,  
Secretary

H. BARGER,  
Treasurer

**Manufacturers' Exporters**  
of

# PAPER

to the Wholesale Jobbing Trade  
Exclusively

**W. M. Pringle Co., Inc.**  
Howard and Crosby Sts., New York, N. Y.

Cable Code—Pringle Co., New York. All Codes



Manufacturers of

**Coated Cardboard, Boxboard and Lithograph Paper, including Lithograph Blanks, Postal Card Stock, Tough Check, Railroad, Thick China, Transluents and Menu Board.**

Our Boards and Papers lie flat, hang straight, and register because they are made right.

Orders for regular or special sizes are given prompt attention. Quality guaranteed.

**TRY US AND SEE**

**EASTERN SALES OFFICE, 501 Fifth Avenue, NEW YORK CITY**

## *A better binding tape for better business*

**T**HERE is this to be said for the superior article—it builds business. Hundreds of paper jobbers are proving this in their increasing sales since stocking Liberty Tape. For Liberty Tape moves. It has created a high grade and persistent demand. Its users are conservative business concerns who will use no binder but the best.

Both Plain  
and  
Printed

Our proposition is an interesting one. Let us tell you more about it.

**LIBERTY PAPER COMPANY**

203 Lafayette St., New York Mills· Bellows Falls, Vt.

**WHITE PAPERS**





## BUILT — *not manufactured*

Like a fine watch, a fine automobile or a fine die, Foxboro instruments are superior because they are built—not manufactured.

Foxboro instruments are simple in design. Into this design are built accuracy, durability, legibility and compactness.

The men and women who build these instruments are artisans. Each workman is proud of every instrument produced because into it goes part of himself.

Each instrument is assembled with infinite care and undergoes many severe tests for accuracy and durability. The quality of materials used is the best that can be obtained.

The Law of Natural Selection applies to industrial life as well as to biological life. Foxboro instruments survive because they are fit. We shall be glad to send you Bulletin BJ-115.

Warren Synchronous Motor Clocks are interchangeable with our standard three-point-support spring clocks and can be furnished with any Foxboro recording instrument.

### THE FOXBORO CO., INC.

Foxboro, Mass.

U. S. A.

NEW YORK CHICAGO TULSA SAN FRANCISCO  
PITTSBURGH PHILADELPHIA BIRMINGHAM

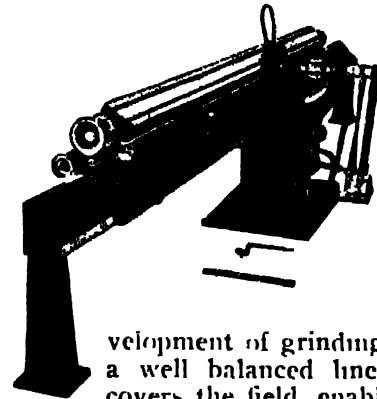
# FOXBORO

TRADE MARK

118 98

## For Grinding Paper Knives

### IMPROVED CONSTRUCTIONS



A carefully developed line of automatic and hand knife grinders of all sizes and types.

Representing three large plants which have specialized over a long period of years, in the development of grinding machines, we have a well balanced line which completely covers the field, enabling exact choice in either light or heavy grinders for straight wheel, cup wheel, ring wheel and adjustable chuck with block wheel grinding.

Get our recommendations on your requirements. Send for catalog illustrating the variety of our work.

### Machinery Company of America

Big Rapids, Mich., U. S. A.

Branch: 534 First Ave., South Seattle, Washington



### EVERYTHING IN

## PULP & PAPER

J. E. PATTON CO., INC.

33 West 42<sup>nd</sup> St.  
New York City

(Cable address - Pulp.N.Y.)



Manufacturers  
of  
All Special  
Small Roll  
Products

PAPER MANUFACTURERS CO., Inc., Phila., Pa.

Adding  
Machine,  
Cash Register,  
Die Wiping,  
Hand Rolls,  
Etc., Etc.

## UNION TALC COMPANY

Finest Grades of Agalite

132 Nassau Street

New York

## Francis Hughes Company

Packers and Graders of

## Paper Mill Supplies

Correspondence Solicited

21st Street at Loomis, Chicago, Ill.

Private Switch on C. B. & Q. Tracks

## The Union Sulphur Company

Producers of the Highest Grade  
Brimstone on the Market . . .

ABSOLUTELY FREE FROM ARSENIC OR SELENIUM

## The Largest Sulphur Mine in the World

CALCASIEU PARISH, LOUISIANA

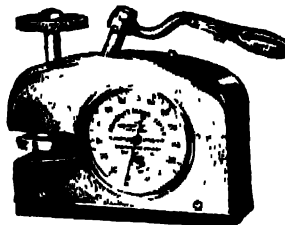
Main Offices: Frasch Building, 33 Rector Street, New York

## WOOD FLOUR

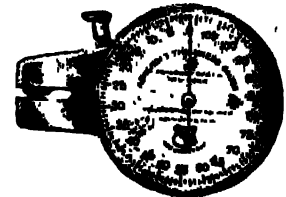
Various degrees of fineness and either fibrous or granular.  
Made from first growth Spruce and Pine, by approved processes.

UNION WOOD FLOUR CO., INC.

Hudson Falls, N. Y.



**The Ashcroft  
Paper Tester**



**The Ashcroft  
Thickness Gauge**

Actual necessities for all those who make, sell or purchase paper in any form. The thousands in daily use testify to their efficiency.

**THE ASHCROFT MFG. CO.**

119 West 40th Street  
New York

29 North Jefferson Street  
Chicago, Ill.

10 High Street  
Boston, Mass.

Canadian Sales Agents: The Canadian Fairbanks Morse Co., Montreal and Toronto.

### DO YOU WANT HELP?

Or have you some machinery you would like to dispose of? Try the JOURNAL'S "Want Pages." They bring prompt returns.

## CLAFLIN CONTINUOUS BEATERS

produce a fine, smooth, strong, uniform stock

### The 250 Claflin Continuous Beaters

Now in use prove that they are the Ideal Equipment for

Rope Manilla	Kraft Paper
Wall Board	Sulphite Screenings
Leather Board	Waste from Pulp Stones

## THE CLAFLIN ENGINEERING CO.

Lancaster, Ohio

The Canadian Fairbanks-Morse Co., Montreal, Quebec  
Agents for Dominion of Canada

ESTABLISHED 1842

## FOURDRINIER WIRES

DANDY ROLLS  
CYLINDER  
MOLDS

**CHENEY BIGELOW WIRE WORKS**  
SPRINGFIELD, MASS.

MANUFACTURERS

Paper Mill Wire Cloth, Bank  
and Office Railings and Grill Work

**SHERMAN PAPER COMPANY**

Manufacturers of Roll Newsprint. H. W. &amp; W. Process

*Entire Product for 1921 Contracted*Mills at Felts Mills, Great Bend & Lefebvre, N. Y.  
Main Office, Trust Co. Building, Watertown, N. Y.**CRANE  
BRASS VALVES****FOURDRINIER WIRES**Cylinder Moulds and Dandy Rolls Made and Repaired  
Lettering and Monograms for Watermarks**THOMAS E. GLEESON, Inc.**

Manufacturers of Wire Cloth of All Descriptions

411-413 John Street, East Newark, N. J.

Specialty—The Finest Wires for Tissue and Fine  
Grade Papers**AGALITE FILLER****UNITED STATES TALC CO.****GOUVERNEUR : NEW YORK****ENGINEERS PLANNING POWER TRANSMISSIONS**

Secure Data and Estimates of "MORSE" DRIVES

SAVE Construction, Space, Light, Fuel Producing More with Less

**MORSE CHAIN CO. - ITHACA, N. Y.**

Engineering Service, Assistance, Bulletins

Baltimore	Chicago	Kansas City	Pittsburgh	Montreal
Boston	Cleveland	New York	San Francisco	Minneapolis
Charlotte, N. C.	Detroit	Philadelphia	Atlanta	St. Louis

See our exhibit at the Seventh National Exposition of Chemical Industries  
8th Coast Artillery Armory, New York, Week of September 12th.**Van Noorden Skylights**

are as

**Indispensable**To a modern Paper  
Mill as its important  
inner equipment.  
"DAYLITE" means  
Nature's light with-  
out weather or con-  
densation drip.**E. VAN NOORDEN & CO.** 103 Magazine St.  
Boston, Mass.**Splicing Tissue****INDIAN AND STAR  
BRANDS**specially prepared for  
**PAPER MILLS****E. M. Sergeant Co.**15 EAST 26TH STREET  
New York, N. Y.**Dry Rosin Size**Brittle and easily soluble. Cheapest size out.  
Cheaper than mill made size. Also our hot and  
cold water sizes; standard quality. Cleaner, more  
uniform and economical than either mill made  
sizes or those offered by our competitors. Also  
Arabol Paper Size, Splicing Gums, Condensed  
Paste Powder, Paper Makers' Starches.**Arabol Manufacturing Co.**

100 William Street : NEW YORK

**FOREIGN and DOMESTIC**  
**Paper Stock**  
**New Cuttings**  
**and Rags**

**CASTLE, GOTTHEIL & OVERTON**

**Jute Stock**  
**Sizing, Sulphite**  
**and Soda Pulps**

**200 FIFTH AVE. NEW YORK**

**"TYLER"  
Fourdrinier Wires**

In all widths up to 250 inches

**CYLINDER FACES  
WASHER WIRES**

In Brass, Bronze and Phosphor Bronze

**The W. S. Tyler Company**  
Cleveland, Ohio

## MORTISE WHEELS

### SPUR, BEVEL AND MITER



Castings of semi-steel by our improved method of machine molding, thus insuring uniform tooth spacing, true rims and smooth running, with high efficiency. Teeth of both Mortise wheel and pinion finished by accurate gear cutting machinery.

DESIGNERS AND BUILDERS  
OF WATER WHEEL HARNESS

**H. W. Caldwell & Son Co.**

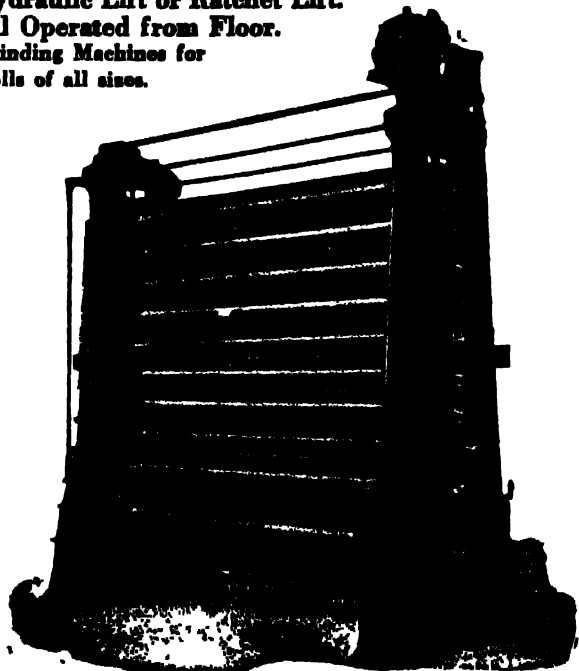
LINK-BELT COMPANY, OWNER

CHICAGO, 17th Street and Western Avenue

NEW YORK, Fulton Bldg., Hudson Terminal, 50 Church St.  
DALLAS, TEXAS, 711 Main St.

## CALENDERS

Furnished Complete, with Electric Motor Lift,  
Hydraulic Lift or Ratchet Lift.  
All Operated from Floor.  
Grinding Machines for  
Rolls of all sizes.



**LOBDELL CAR WHEEL CO.**  
Wilmington, Del., U. S. A.

## FARREL

### Roll Grinders



For the sake of your product regrind your used worn rolls on a Farrel roll grinder—a heavy, sturdy instrument of precision—we have made and used them ourselves for years.

*Farrel calendars and chilled rolls are known for the highest in quality*

*We are the largest makers in the world of these products*

Write for Bulletin L-755

Established 1848

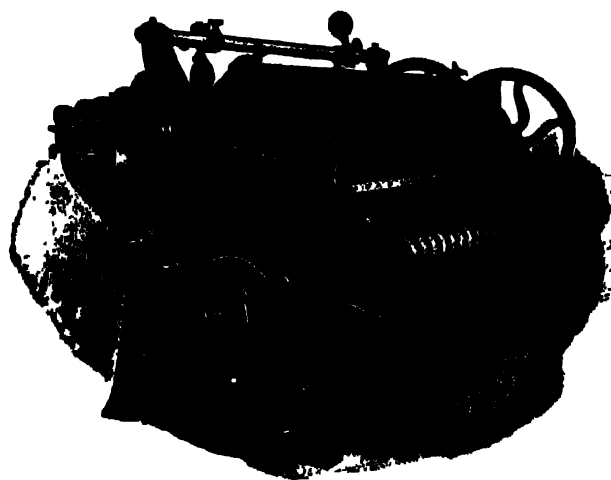
**Farrel Foundry & Machine Company**

Ansonia, Conn., U. S. A.

Branch Plant: Buffalo, N. Y.

## Paper Cutters

Single, Duplex and Diagonal



Cutter Knives

Patent Top Slitters

**HAMBLET MACHINE CO.**

Lawrence, Mass.

## New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,  
WEDNESDAY, October 5, 1921

A reduction in the contract price for news print paper during the coming quarter and a general revival of demand have combined during the week to make for a much stronger undertone throughout the entire industry. In all lines a better feeling prevails and there is no variety of paper which has not at least shown definite signs of a return to normal. It is thought by most of the dealers and manufacturers that this is not simply a flurry but that it is a lasting and steadily gaining improvement pointing the way to much better business during the coming winter months. This does not mean that things will be actually normal for some time yet. In all probability this situation will not be reached until the middle of next spring, but the mills are all resuming and buying for the future, in a modest way, has set in. Everything is working gradually along toward the best and the feeling through the trade has changed from deep depression to moderate optimism.

Although news print, which was one of the last to feel the depression in buying, is expected to be slower than some of the other grades of paper in coming back it is reported to have enjoyed a slight stimulus during the past week as the result of the lowered prices. Contract rolls are now quoted at 4.00 cents a pound, sheets have dropped to 4.25 cents and side runs are as low as 3.50. Lots in the open market, of course, have gone down in a corresponding manner and goods are moving somewhat faster as a result. Many daily newspapers are striving to increase circulation by all sorts of methods and advertising is slowly coming back causing an increase in the size of each edition. All this is going on gradually, but news print manufacturers are sure that low water mark of demand is now passed and that from now on there will be a steady increase until flood tide is once more reached.

Although there have been no further price changes in book paper during the week the demand is keeping up satisfactorily and a greater firmness has been evidenced in quotations on all grades. Things are slowly improving in this market and manufacturers claim that they expect considerably more business by next month. There is little doubt that things will be normal within a little while.

Although business is still slow in the fine paper market things seem to be gradually working around toward an improved demand. The export business is dead yet, although Americans seem to be getting some business in South America despite the extremely low prices of the German goods. One man remarked that no matter how low the Germans put their prices the Americans can compete because they are more trustworthy and have better goods. He cited a case of a German firm selling certain grades of bond to a South American concern at an extremely low figure and then failing to ship when the current prices went up and it found that it could get a better price elsewhere.

Tissue continues to be in good demand in all grades with the dealers laying in stocks and the clothing and shoe people buying once more. Tissue, although it is not yet normal, is about the nearest to it of any of the grades in the paper market. It is expected that there will be even greater improvement in the months to come and manufacturers are very optimistic about the immediate outlook.

The demand for wrapping paper continues to grow slowly but surely. Reports of an increase in the number of inquiries together with an enlargement of the size of the orders cause a much better feeling among wrapping paper men than has existed in a long time.

Board has remained just about the same during the past week as it was during the preceding one. Orders are coming through with a fair amount of steadiness and the outlook is for the best. Board is much better now than it has been in some time and manufacturers say that they are preparing to do a good business in the ensuing months.

### Mechanical Pulp

Mechanical pulp still continues to improve and the demand is better now than it has been in a long time. This is due in part to low water conditions which have practically cut off the immediate supply and scared many into buying. The chief reason, however, is that the paper mills are once more interested and the likelihood is that this product will pick up very rapidly from now on, even after the production of it once more comes up to normal.

### Chemical Pulp

Chemical pulp, both imported and domestic, is reported improving in all grades. Prices have become much firmer and a general stiffening of the demand has served to bring about much better feeling among members of the trade.

### Old Rope and Bagging

Considerable improvement has been noted in old rope during the week and in bagging as well. The grades of paper into which these go as raw material have been in better demand and the mills are therefore beginning to lay in larger stocks.

### Rags

While foreign rags are still in poor demand and quotations largely nominal many of the domestic grades have picked up a little and are now in better demand. Rooking stock is a little bit improved as are many of the other grades of old rags.

### Waste Paper

A better demand for all grades of waste paper has marked the week. Dealers say that the board mills are buying once more and that all signs indicate a return to normal in a very short time.

### Twine

Twine is also considerably better. The demand has increased proportionately with the improvement in paper and dealers believe that this is likely to continue for some time.

## PRACTICAL QUESTIONS AND ANSWERS

(Continued from page 32)

the paper is breaking continually and it would be necessary to stop all the rolls. But in a case like that we think it would do harm to the wire or would cause other kinds of damage on the machine. We would be very thankful if anyone could advise us how to get rid of this trouble.

We also have trouble with the doctor on the second press roll. We wash everything up good on Sunday morning, clean out underneath the doctor, scraping off the doctor blade and leave it lay flat on the press roll and it is in No. 1 condition and does not leak. But Monday morning when starting up, having everything in good condition and trying to take the paper over the machine, put the paper through the second press right and let it run upon it a few seconds, the paper will stick to the rolls, go around it and raise the doctor up off the roll. Sometimes it gives an hour's hard work to take the paper over on account of this trouble. Sometimes we just take it right over without letting any run up on the doctor and after thirty minutes' running it will be all right. We also tried to put oil on top of the doctor blade but not always successful.

### Krepcraft Co. Leases Building in Newark

NEWARK, N. J., October 3, 1921.—The Krepcraft Paper Company has leased the one-story building at 129-133 Jackson street, between Ferry and Lafayette streets. The Krepcraft company has been engaged in manufacturing in Brooklyn. Its lease on the Jackson street structure is for a long term. The space leased comprises over 8,000 feet and will be used for the manufacture of crepe paper.

# Market Quotations

## Paper Company Securities

New York Stock Exchange, closing quotations October 4, 1921.

Stocks	BID	ASKED
American Writing Paper Company, pref	23	24
International Paper Company, com	48½	48¾
International Paper Company, pref, stamped	69	70
Union Bag & Paper Corporation	65	66

Because of the unusual conditions prevailing in the various markets quotations are more or less nominal.

Paper	F o b Mill	New Blue	4 25	@ 5 00
Ledgers	12 @ 30	New Black Soft	2 75	@ 3 00
Bonds	9 00 @ 55 00	New Light Sec-	2 35	@ 2 65
Wrappings		O D Khaki Cut-		
Extra Superfine	13 @ 25	tings	3 50	@ 3 75
Superfine	13 @ 20	Corduroy	3 00	@ 3 25
Tub Sized	13 @ 16	New Canvas	6 25	@ 6 75
Engine Sized	9 00 @ 15 00	New Black Mixed	2 50	@ 2 75
New-f o b Mill		Old		
Rolls, contract	4 00 @ 5 15	White, No 1-		
Rolls, transit	4 75 @ 5 75	Repacked	5 50	@ 5 75
Sheets	5 00 @ 6 00	Miscellaneous	1 25	@ 4 50
Sole Rums	3 00 @ 4 80	White, No 2		
Book, Cased-f o b N Y		Repacked	3 00	@ 3 25
S & S C	6 70 @ 8 50	Miscellaneous	2 25	@ 2 50
M F	6 50 @ 8 25	St. Soiled White	1 15	@ 1 35
Cut and En-		Threds and Blues		
me	8 25 @ 11 00	Repacked	1 75	@ 2 00
Lithograph	9 00 @ 11 25	Miscellaneous	1 15	@ 1 35
Tissues-f o b N Y		Black stockings	1 75	@ 2 00
White, No 1	75 @ 1 00	Cloth Strappings	1 00	@ 1 15
Colored	1 10 @ 2 15	No 1	1 00	@ 1 15
Anti-Tarnish	1 50 @ 2 70	No 2	85 @ 90	
Mamila	70 00 @ 90 00	No 3	70 @ 80	
Kraft f o b Mill		No 4	60 @ 70	
No 1 Domestic	6 00 @ 6 50	No 5	70 @ 80	
No 2 Domestic	5 00 @ 5 50			
Imported	6 00 @ 6 50			
Sulphate Screenings	2 00 @ 3 00			
Mamila				
No 1 Jute	8 00 @ 9 00			
No 2 Jute	7 75 @ 8 50			
No 1 Wood	5 00 @ 6 00			
No 2 Wood	4 50 @ 5 00			
Anticars	4 00 @ 5 70			
Fiber Papers				
No 1 Fiber	6 00 @ 7 00			
No 2 Fiber	5 00 @ 6 00			
Common Ragus	1 80 @ 2 10			
Cad Middle	5 00 @ 5 75			
Boards-per ton				
News	35 00 @ 40 00			
Straw	35 00 @ 40 00			
Chip	35 00 @ 40 00			
Binders' Board	65 00 @ 75 00			
Sgl Mla Id Crp	50 00 @ 60 00			
Wood Pulp	80 00 @ 90 00			
Container	55 00 @ 60 00			

## Mechanical Help

(F o b Pulp Mills)	
No 1 Imported	30 00 @ 35 00
No 1 Domestic	30 00 @ 35 00
(F o b Deck)	

## Chemical Pulp

(F o b Deck, Atlantic Ports)	
Sulphate (Imported)	
Bleached	4 00 @ 4 25
Easy Bleaching	3 00 @ 3 25
No 1 Strong un-	
bleached	2 65 @ 2 85
No 1 Kraft	2 50 @ 2 85
Sulphate	
Bleached	3 25 @ 3 75
(F o b Pulp Mill)	
Sulphate (Domestic)	
Bleached	4 00 @ 4 25
Strong unbleached	3 00 @ 3 25
Easy Bleaching	
Sulphate	3 00 @ 3 25
News Sulphate	2 75 @ 3 00
Mitscherlich	3 75 @ 4 25
Kraft (Domestic)	2 50 @ 3 75
Soda bleached	nominal @ 4 25

## Domestic Rags

New	
Prior to Mill, f o b N Y	
Shirt Cuttings	
New White, No 1	9 00 @ 9 25
New White, No 2	5 50 @ 6 00
Silenas, No 1	6 00 @ 6 25
New Unbleached	8 50 @ 8 75
Washables	4 25 @ 4 50
Fancy	5 25 @ 5 50
Cottons-according	
to Grades	
Blue Overall	5 75 @ 6 25

## Bagging

Prior to Mill f o b N Y	
Gunny No 1	1 00 @ 1 10
Foreign	1 10 @ 1 20
Domestic	1 10 @ 1 20
Wool, Tares, light	1 25 @ nominal
Wool, Tares, heavy	1 25 @ nominal
Right Bagging	1 00 @ 1 25
No 1 Setap	1 00 @ 1 25
Sound Bagging	75 @ 85
Manila Rope	
Foreign	4 25 @ 4 50
Domestic	4 50 @ nominal
New Bu Cut	2 00 @ 2 25
Hessian Jute Threads	
Foreign	4 25 @ 4 50
Domestic	4 00 @ 4 25
Mixed Stripes	1 00 @ 1 15

## Twines

Cotton (F o b Mill)	
No 1	22 @ 23
No 2	19 @ 20
No 3	18 @ 19
India, No 6 basis	
Light	18 @ 19
Dark	17 @ 18
B. C. 18 Basis	39 @ 40
A. B. Italian	18 @ 60
Basis	
Finished Jute	50 @ 60
Light, 18 basis	26 @ 27
Dark, 18 basis	24 @ 25

Jute Wrapping, 2-6	
1 ply	
No 1	25 @ 26
No 2	23 @ 24
Tube Rope	
5 ply and larger	17 @ 18
Tube Tube Yarn	
5 ply and larger	30 @ 32
4 ply	31 @ 33
3 ply	32 @ 34
Unfinished India	
3 ply and larger	16 @ 17
Paper Makers Twine	
Balls	10½ @ 12½
Box Twine, 24 ply	14 @ 16
Jute Rope	20 @ 24
Amer Hemp, 6	32 @ 34
Sisal Hay Rope	
No 1 Basis	19 @ 22
No 2 Basis	18 @ 20
Sisal Lath Yarn	
No 1	18 @ 19
No 2	15 @ 19
Manila Rope	26 @ 28

## Old Waste Papers

(f o b New York)	
Shavings	
Hard White, No 1	3 65 @ 3 85

Hard White No 2	3 10 @ 3 25
Soft White No 1	3 00 @ 3 25

Flat Stock	
Sutchless	1 50 @ 1 60
Over Issue Mag	1 50 @ 1 60
Solid Flat Book	1 40 @ 1 50
Crumpled No 1	1 05 @ 1 15
Solid Book Ledger	2 00 @ 2 25
Ledger Stock	1 75 @ 1 85
No 1 White News	1 80 @ 2 00
New B B Chips	.50 @ .60

Mamila	
New Env Cut	3 00 @ 3 25
New Cut, No 1	1 90 @ 2 15
Extra No 1, Old	1 50 @ 1 60
Print	90 @ 1 00
Contaminated Board	70 @ .80
Bogue Wrapper	70 @ .80
Old Krafts, mach-	
ine compressed	
Bales	2 00 @ 2 10

News	
Strictly Outissue	.85 @ .90
Strictly Folded	.70 @ .80
No 1 Mixed Paper	.50 @ .55
Common Paper	.35 @ .40

## CHICAGO

(FROM OUR REGULAR CORRESPONDENT)

Paper	F o b Mill	Solid Wood Pulp	80 00 @ 90 00
		Straw Board	.35 00 @ 1 00 00
		Filled Pulp Board	60 -
		Old Papers	
		Shavings	
		No 1 Hard White	3 00 @ 3 50
		No 1 Soft Shav	2 25 @ 2 50
		No 1 Mixed	90 @ 1 00
		No 2 Mixed	90 @ 1 00
		White Envel Cut	
		tings	3 00 @ 3 50
		Ledgers and Wit-	
		ings	1 25 @ 1 40
		Solid Books	1 20 @ 1 30
		No 1 Books, light	90 @ 1 00
		Blanks	1 75 @ 2 00
		Ex No 1 Mamila	2 50 @ 3 00
		Mamila envelope	
		(cuttings)	2 50 @ 3 00
		No 1 Mamila	90 @ 1 00
		Folders News (over	
		issue)	85 @ 1 00
		Old Newspaper	75 @ .85
		Mixed Papers	60 @ .65
		Straw Clippings	60 @ .65
		Binders' Clippings	60 @ .65
		Kraft	2 00 @ 2 50
		New Kraft Cuts	2 10 @ 2 60
		Roofing Stock, f o b	
		Chicago, Net	
		Cash	
		No 1	12 00 @ -
		No 2	16 00 @ -
		No 3	14 00 @ -
		No 4	14 00 @ -

## PHILADELPHIA

(FROM OUR REGULAR CORRESPONDENT)

Paper		Best Fatted, 1 ply	2 00 @ 2 10
		(per roll)	
		Best Fatted, 2 ply	1 50 @ 1 60
		(per roll)	
		Best Fatted 3 ply	2 00 @ 2 10
		Bagging	
		Gunny No 1	2 25 @ 2 50
		Foreign	2 25 @ 2 50
		Domestic	1 00 @ 1 25
		Manila Rope	4 00 @ 4 50
		Sisal Rope	75 @ 80
		Mixed Rope	75 @ 80
		Scrap Burlaps	1 00 @ 1 25
		Wool Tares, heavy	2 50 @ 2 75
		Mixed Strings	75 @ 80
		No 1, New Lf But	
		lap	75 @ 80
		New Burlap Cut-	
		tings	1 75 @ 2 10
		Old Papers	
		Shavings	
		No 1, Hard	3 00 @ 3 50
		No 2, Hard	2 75 @ 3 00
		No 1 Soft White	2 00 @ 2 50
		No 2 Soft White	1 50 @ 1 75
		No 1 Mixed	1 00 @ 1 25
		No 2 Mixed	.60 @ .75

(Continued on page 62)

# Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING OCTOBER 1, 1921

### SUMMARY

News Print	1,403 rolls
Printing Paper	83 cs, 3 bls
Tissue Paper	6 cs
Surface Coated Paper	71 cs
Drawing Paper	3 cs
Packing Paper	304 rolls, 95 bls
Filter Paper	41 cs
Wall Paper	2 cs
Cigarette Paper	140 cs
Cordboard	262 roll
Miscellaneous paper	27 cs, 197 roll

### CIGARETTE PAPER

American Tobacco Co., La Lorraine, Havre,	78 cs
American Tobacco Co., Grelfyde, Bordeaux,	150 cs
American Tobacco Co., Osooda, Havre,	140 cs
Ligaret & Myers Tobacco Co., by same,	72 cs

### WALL PAPER

M. J. Corbett & Co., Westerdijk, Rotterdam,	2 cs
---	------

### FILTER PAPER

E. Fongera & Co., Grelfyde, Bordeaux,	42 cs
H. Reeve Angel & Co., Rotterdam, Rotterdam,	5 cs

### PACKING PAPER

Republic Bag & Paper Co., Kenowis, Hamburg,	95 bls
Republic Bag & Paper Co., by same,	257 rolls
J. L. N. Smythe & Co., Bayern, Hamburg,	47 rolls

### DRAWING PAPER

H. Reeve Angel & Co., Rotterdam, Rotterdam,

### SURFACE COATED PAPER

L. A. Cousinier, Rotterdam, Rotterdam, 71 cs

### TISSUE PAPER

Meadow, Wye & Co., Seythia, Liverpool, 6 cs

### PRINTING PAPER

B. F. Drakensted & Co., Seythia, Liverpool,

2 cs

H. Reeve Angel & Co., Indiana Bridge, Kotka,

3 bls

Globe Shipping Co., Orupesi, Hamburg, 81 cs

### NEWS PRINT

Agir, Hainsson Corp., Kenowis, Hamburg, 160

roll

Atlantic Forwarding Co., by same, 4 rolls

Sun Herald Corp., Kootenai, Helsingfors, 1,239

roll

### CARD BOARD

Lagerlof Trading Co., Kootenai, Viborg, 262

roll

### PAPER

Camille Perret, La Lorraine, Havre, 15 cs

Lunch Fyde & Co., Fred VIII, Copenhagen,

197 rolls

Japan Paper Co., Havana Maru, Yokohama,

12 cs

### RAGS & BAGGING, ETC

American Wood Pulp Corp., Bayern, Hamburg,

21 bls new cuttings

American Wood Pulp Corp., Gen. Washington,

Bremen, 55 bls rags

F. J. Keller & Co., by same, 357 bls rags

Tarsons & Whittemore, Kenowis, Hamburg, 648

bls rags

F. J. Keller Co., Eastern Dawn, Antwerp, 63

bls bagging

F. J. Keller Co., Frederick VIII, Copenhagen,

46 bls rags, 88 bls bagging

### OLD ROPE.

Brown Bros. & Co., Exeter City, Bristol, 58

coils

Brown Bros. & Co., Chicago City, 55 coils

Mechanics & Metals Nat'l Bk., Chicago City,

Bristol 35 coils

### CHINA CLAY.

Luke Knowles, Chicago City, Bristol, 150 tons.

Moore & Munger, by same, 316 tons.

Paper Makers' Chemical Co., by same, 102 tons.

Paper Makers' Chemical Co., Exeter City, Bris-

tol, 110 tons

Hammill & Gillespie, by same, 100 tons

Moore & Munger, by same, 289 tons

### WOOD PULP

Lagerlof Trading Co., Indiana Bridge, Kotka,

1,771 bls sulphate cellulose

Lagerlof Trading Co., Kootenai, Viborg, 3,500

bls wet ground wood pulp, 700 tons

Lagerlof Trading Co., Ripon, Viborg, 3,098 bls

dry ground wood pulp, 500 tons

F. M. Sergeant & Co., Fred VIII, Copenhagen,

350 bls wood pulp

## PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 1, 1921

Lagerlof Trading Co., Ripon, Viborg, 9,426 bls

wet ground pulp, 177 tons

## NEWPORT NEWS IMPORTS

WEEK ENDING OCTOBER 1, 1921

Lagerlof Trading Co., Kootenai, Viborg, 10,160

bls wet ground pulp, 2,037 tons

## BETTER DEMAND IN PHILADELPHIA

(Continued from page 22)

convention of the United Typotheta of America at Toronto at the close of this month. While the Paper Trade Association has thus far taken no official action on the "long list," consensus of opinion is that while the object sought by the printing trade is entirely proper, the "long list" is an inadvisable way in which to attempt to secure the result. It is improbable that the "long list" will be adopted, although the spirit of it will be observed.

### Ask Creditors to Accept Settlement

Creditors of A. Rose and Son, paper stock and rag dealers, 2527 E. York street, were asked during the week to accept a settlement of forty per cent in full payment for their claims. The proposition was made to make immediately a cash payment of 20 per cent and to give notes for the remainder. The firm's liabilities are reported to run from \$55,000 to \$60,000 and its assets from \$12,000 to \$15,000.

### General News of the Trade

S. Walter Company, Inc., shortly will remove its executive offices from 321 Cherry street to the building at 305 Cherry street, long occupied by it as a warehouse. The present offices are on the first floor and this will be used to increase the shipping department. In the new location they will be on the second floor, leaving the first free for continued use for shipping. The other floors in both buildings will be used for storage of stock.

The Paper House of Pennsylvania is sending out an announcement printed on Bannockburn cover that Asher S. Humes, who recently joined the organization after former service with the D. L. Ward Company, has been assigned to cover the Eastern Pennsylvania and Delaware territory and that he shortly will visit the trade there. Howard H. Shoemaker, who a year ago left the Paper House to seek health, found it on a ranch in Nebraska,

where for twelve months he and one other herded some 10,000 sheep on a 12,000 acre farm. During the week Mr. Shoemaker returned to his duties at the Paper House.

The advertising, mailing and statistical departments of the D. L. Ward Company, previously located on the fourth and fifth floors of the establishment at 6th and Ranstead streets, during the week were relocated on the third floor, immediately adjacent to the offices of Secretary William A. Hentz, who has taken over their direction. Robert C. Kuyk, who retired on Saturday as head of the Richmond branch of the D. L. Ward Company and was succeeded by Herbert Sewall, is reported to have purchased an interest in the Lips-Fitzgerald Company, paper distributors, Richmond, Va.

Work was resumed yesterday in the plant of the York Card and Paper Company, York, Pa., after an idleness of two months due to labor troubles. The Gilbert and the York Wall Paper Companies, similarly affected, also resumed operations.

The Reading Paper Mill last week restarted its 96 inch book paper mill, which had been down for some time. The company will resume production at the close of the month of its unbleached rope mills for the manufacture of paper for sanding. The mills recently were equipped with a fire protection sprinkler system.

The Ginger Club of the Charles Beck Company will give a benefit at the Forrest Theatre, October 17, 18 and 19, for the purpose of raising a fund immediately available in case of the death or disability of any of its members. In charge of the affair are Sale Service Manager L. Harry Rees, and a committee.

The Baeder-Adamson Mill under its new ownership resumed full time operations on Thursday of last week with doubled capacity since the installation of improvements during the summer. The mill produced daily ten tons of stock, consisting of No. 1 rope, tag, No. 1 Kraft and jute specialties, of which forty per cent is used by the company itself and the remainder placed on the open market. C. A. Kelly is in charge.

# CONSOLIDATED PAPER BAG CO.



*General Offices:*  
125 Merrimac St., Boston, Mass.

*Factory:*  
Somerville, Mass.

*Manufacturers of*  
**PAPER BAGS and SACKS of EVERY DESCRIPTION**

Samples submitted on request

Inquiries Solicited

## SUPERIOR CHEMICAL CO.

JOLIET, ILLINOIS

*Manufacturers*

**PAPER MAKERS' and FILTER  
ALUM**

## STEARNS TANKS

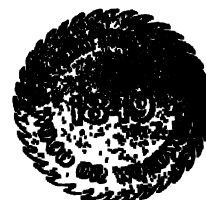
BLOW-PIPES, STORAGE  
TANKS, ACID TOWERS, ETC.,  
OF WOOD.

HEAVY PAPER MILL WORK  
IS OUR SPECIALTY.

70 YEARS' EXPERIENCE.

*Enquire for quotations  
Have you our catalogue?*

THE A. T. STEARNS LUMBER COMPANY  
125 Taylor St., Neponset, Boston, Mass.



## BLEACHED SULPHITE

FOR

Writing, Book and Tissue Papers

**PARSONS  
Pulp and Lumber Co.**

EDWIN J. DEWEY, Manager Pulp Sales

Office, 1897-1818 Finance Bldg.,  
PHILADELPHIA, PA.

Mills at  
PARSONS, WEST VA.

## Salomon Bros. & Co.

IMPORTERS OF

**All Grades of Rag and Paper Stock**

200 FIFTH AVENUE, NEW YORK

Cotton Waste : Linters : Ramie

## CLAY

Atterbury Bros., Inc.  
Sole Agents  
145 Nassau St., N. Y.

West Carclaze China  
Clay Co.,  
St. Austell, England

# WHITAR

TRADE MARK REG. U.S. PAT. OFF.

# NEWS BLUE METHYL VIOLET

We supply a complete line of colors suitable for paper

**THE WHITE TAR ANILINE CORP.**

56 Vesey Street, New York

Works: Kearny, N. J.

## Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,  
WEDNESDAY, OCTOBER 5, 1921.

The chemical market has exhibited a much firmer undertone this week with an increasing demand for most of the heavy chemicals and an improvement in interest in most of the other varieties. Naval stores in particular are showing improvement.

**ALUM- Potash alum** has declined a little, but orders from paper mills are keeping ammonia alum in a healthy state with a good demand which appears to be growing little by little. The price remains the same for the latter grade, 350 to 375 cents for the lump, 375 to 400 cents for the ground and 400 to 425 cents for the powdered.

**BLEACHING POWDER**—A fairly good demand for bleaching powder has prevailed during the week and the price has been very firm with no change from last week. It is now quoted at 2.25 to 3.00 cents a pound in large lots.

**BLANC FIXE** Blanc fixe continues to become firmer with the paper mills showing considerable interest and the number of orders gradually increasing from day to day. The price on the pulp is firm at \$40 to \$50 a ton, depending upon the grade required, while the powdered is still at 350 to 375 cents a pound.

**BRIMSTONE** The demand for brimstone is slightly improved and dealers report that the number of orders is increasing, although not much interest is shown in large lots as yet. The price remains at about the same level as it has been for some time, \$15 to \$18 a long ton at the mines.

**CAUSTIC SODA** Prices have been very firm and the market strong in caustic soda during the past week. Paper mills appear to be laying in stocks once more and dealers believe that business will be back to normal within a few months providing the present improvement continues to increase. It is still quoted at 3.25 cents a pound on the basis of 60 per cent.

**CASEIN** Casein continues to be in good demand and the goods on the open market appear to be just about exhausted. The price is very firm and dealers say that they are doing a most satisfactory business with the paper mills. The price is around 700 to 800 cents a pound.

**CHINA CLAY** The demand for china clay is still fairly good and is reported to be improving all the time. Importations are increasing and the domestic material is also in good demand. Prices are the same with the domestic unwashed grade selling at \$7 to \$8 a ton, the domestic washed \$9 to \$10 and the imported from \$16 to \$24 a ton.

**ROBIN** Rosin continues to improve and dealers report that the paper and soap industries have come into the market for good orders. The price is a little higher with grade E at 5.85 per barrel, F at \$6.05 and G at \$6.10.

**SALTCAKE**—Although the price of saltcake has gone no higher the demand from the paper industry is a little better. The supply of the manufactured grade is more plentiful owing to the resumption of several of the chemical plants making muriatic acid, of which saltcake is the by product. It is quoted at \$17 to \$25 a ton.

**SATIN WHITE**—There is a much better demand for satin white but the contract price of 210 cents a pound remains unchanged.

**STARCH** The demand for starch is also much better and globe starch is quoted at from 1.98 to 2.26 cents a pound.

**SULPHATE OF ALUMINA**—Alumina sulphate has remained just about the same during the week with paper mills still showing considerable interest. Commercial is quoted at 1.60 to 2.00 cents a pound and the iron free grade at 2.50 to 3.00 cents a pound.

**SODA ASH** There is a better demand for soda ash and the price remains firm at 2.50 to 3.00 cents a pound.

**TALC**—American talc is in more demand among the mills and the price is just the same at \$18 a ton.

## Market Quotations

(Continued from page 59)

Solid Ledger Stock	175	@	2.00	New Black Soft	.03	@	.03 1/4
Writing Paper...	150	@	1.75	New Light Sec			
No. 1 Books, heavy	1.25	@	1.50	onds	.02 1/4	@	.02 1/4
No. 2 Books, light	.90	@	1.00	Khaki Cuttings	.03	@	.03 1/4
No. 1 New Manila	2.75	@	3.00	Corduroy	.02	@	.02 1/4
No. 1 Old Manila	1.25	@	1.50	New Canvas	.08	@	.08 1/4
Container Manila	.75	@	.80	New Black Mixed	3.00	@	3.25
Old Kraft	2.00	@	2.25				
Overissue News	.90	@	1.00	Old			
Old Newspaper	.40	@	.50	White, No. 1—			
No. 1 Mixed Paper	.40	@	.50	Repacked	.06	@	.06 1/4
Common Paper	.25	@	.30	Miscellaneous	.04 1/2	@	.04 3/4
Straw Board, Chip	.25	@	.30	White, No. 2—			
Binders' Bd Chip	.25	@	.30	Repacked	.03	@	.03 1/4
Domestic Rags				Miscellaneous	.02 1/4	@	.03 1/4
Price to Mill, f. o. b. Phila.				Thirds and Blues—			
Shut Cuttings				Repacked	1.85	@	2.00
New White, No. 1	.09	@	.09 1/2	Miscellaneous	1.55	@	1.75
New White, No. 2	.05 1/2	@	.06	Black stockings	1.75	@	2.25
Silicas, No. 1	.05 1/2	@	.06	Roofing Stock			
New unbleached	.08	@	.09	No. 1	.90	@	1.00
Washables	.03 1/2	@	.03 3/4	No. 2	.80	@	.90
Lumps	.07	@	.05 1/2	No. 3	.70	@	.80
Cottons—according to grades				No. 4	.75	@	.85
Blue Overall	.05	@	.05 1/2	No. 5			nominal
New Blue	.02 1/2	@	.02 3/4	No. 6			nominal

### BOSTON

[FROM OUR REGULAR CORRESPONDENT]

Paper			Wood, Vat Lined	47.50	@	50.00
Bond	.04	@	Filled News Board	42.50	@	
Labels	.09	@	Solid News Board	42.50	@	47.50
Writings	.08	@	S. Manila Chip	55.00	@	
Superfine	.15	@	Pat. Coated	70.00	@	
Line	.12	@				
Books S. & S. C.	.07 1/2	@				
Books M. I.	.07	@				
Books, coated	.09	@				
Labels	.10	@				
News, sheet	\$4.50	@				
News, roll	.04	@				
Manila						
No. 1 Manila	\$7.00	@				
No. 1 Fibre	8.00	@				
No. 1 Lute	8.00	@				
Kraft Wrapping	7.00	@				
Common Rags	3.00	@				
Boards						
(Per Ton Destination)						
Chip	\$40.00	@				
News Vat Lined	42.50	@				

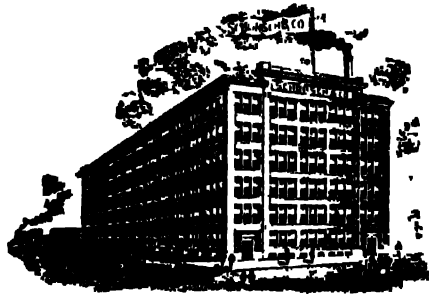
### Old Papers

Shavings						
No. 1 Hard White	.03 1/2	@				
No. 1 Soft White	.03	@				
No. 1 Mixed	.85	@	\$1.00			
Ledgers & Writings	.02	@				
Solid Books	.01 1/4	@				
Blanks	.01 1/4	@				
No. 2 Books Light	.80	@				
No. 1 Manila	.01	@				
Folded News over						
issue	18.00	@				
Mixed paper	9.00	@				
Gunny Bagging	.75	@				
Manila Rope	.04 1/2	@				
Common Paper	.80	@				
Old News	14.00	@				
Old Kraft	.02 1/4	@				

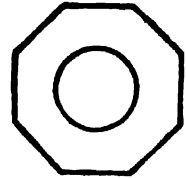
### TORONTO

[FROM OUR REGULAR CORRESPONDENT]

Paper			Sulphate bleached	80.00	@	90.00
(Mill Prices to Jobbers f. o. b. Mill)			Sulphate	60.00	@	65.00
Bond						
Sulphate	.13	@				
Light tinted	.14	@				
Dark tinted	.15 1/2	@				
Ledgers	.14	@				
Writing	.11	@				
News, f. o. b. Mills—						
Rolls (carloads)	4.75	@				
Sheets (2 tons or over)	5.60	@				
Book—						
No. 1 M. F. (carloads)	10.00	@				
No. 2 M. F. (carloads)	9.00	@				
No. 3 M. F. (carloads)	8.50	@				
No. 1 S. C. (carloads)	10.50	@				
No. 2 S. C. (carloads)	9.50	@				
No. 1 Coated and litho	15.00	@				
No. 2 Coated and litho	14.00	@				
No. 3 Coated and litho	13.25	@				
Coated and litho, colored	15.25	@				
Wrapping—						
Grey	4.75	@				
White Wrap	5.25	@				
"B" Manila	5.75	@				
No. 1 Manila	7.50	@				
Fibre	7.25	@				
Kraft, M. F. or M. G.	8.75	@				
Pulp						
(F. o. b. Mill)						
Ground Wood	\$25.00	@	\$35.00			
Sulphite, easy bleach-						
ing	65.00	@	70.00			
Sulphite, news grade	55.00	@	60.00			
Old Waste Papers						
(In carload lots, f. o. b. Toronto)						
Shavings						
White Env. Cut	2.50	@				
Soft White Book						
Shavings	2.50	@				
White Bl'k News	1.70	@				
Book and Ledger—						
Flat Magazine and Book Stock						
(old)	1.15	@				
Light and Crumpled Book Stock	.90	@				
Ledgers and Writings	1.60	@				
Solid Ledgers	1.60	@				
Manila—						
New Manila Cut	1.85	@				
Printed Manila	.70	@				
Kraft	2.25	@				
News and Scrap—						
Strictly Overissue	.85	@				
Folded News	.75	@				
No. 1 Mixed Papers	.50	@				
Domestic Rags—						
Price to mills, f. o. b. Toronto.						
Per lb.						
No. 1 White shirt cuttings	.08 1/4	@	.08 3/4			
No. 2 White shirt cuttings	.05 1/4	@	.05 3/4			
Fancy shirt cuttings	.05 1/4	@	.05 3/4			
No. 1 Old whites	.03 1/4	@	.04			
Thirds and blues	.02	@	.02 1/4			
Per cwt.						
Black stockings	2.00	@				
Roofing stock						
No. 1	1.10	@				
No. 2	1.00	@				
Roofing stock						
Manila rope	.04	@				
No. 2	.01 1/4	@				
Gunny bagging	.02 1/4	@				

*The Home of Quality*FACTORY  
132<sup>ND</sup> TO 133<sup>RD</sup> ST & BROOK AVE**PAPER BAGS****Sacks and Specialties**

ESTABLISHED 1891

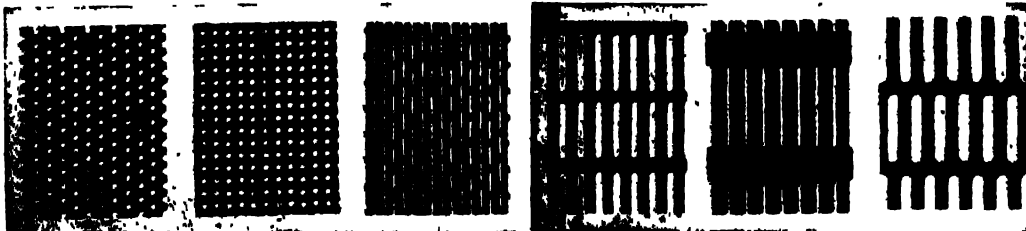
**SCHORSCH & CO.****Manufacturers****500 East 133d Street****:****New York**This Registered Trade  
Mark Octagonon a Paper  
Bag Vouches for  
Its Good Quality**Missisquoi Pulp and  
Paper Company****SHELDON SPRINGS****VERMONT**White and Tinted Bristols—White  
Blanks—Index Bristol and Special-  
ties in Card Boards.**POTDEVIN****PAPER BAG  
ENVELOPE  
PAPER WAXING****MACHINERY****POTDEVIN MACHINE CO.****1223 38th Street****Brooklyn, N. Y.**

Est. 1893—Inc. 1906

Phones: 5180-5181 Sunset

**PULP  
STONES**

of absolutely the finest quality

**LOMBARD & CO.***Importers and Dealers***236-238 A. Street : BOSTON, MASS.***Branch at Montreal, Canada***PERFORATED METALS***All sizes  
and  
shapes  
of Holes**All kinds  
and  
thicknesses  
of Metal*

For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

**The Harrington & King Perforating Company****618 No. Union Ave., Chicago, Ill., U. S. A.****New York Office, 114 Liberty St.**

# WANT AND FOR SALE ADVERTISEMENTS

## HELP WANTED

**WANTED**—Color and Dyestuff Salesman for Middle West by an old established manufacturing and importing concern, to call on the manufacturing trade. Liberal compensation to a successful party. State previous experience, references, age and salary expected. Address, Box 4418, care Paper Trade Journal. O-27

**WANTED**—Salesmen who call upon the Paper Trade and large Manufacturers, to sell complete line of Cordage and Twine on commission. In replying give full particulars regarding line sold at present, also reference. Only real salesmen with a following wanted. Address, Box 4457, care Paper Trade Journal. O-6

**WANTED**—Salesman Coarse Paper, Twine, etc. By old Established New York Jobber of wide reputation. Field unlimited. Must have established trade. Commission basis. Drawing account. Confidential. Address, Box 4475, care Paper Trade Journal. O-13

**MANAGER AND SALESMAN** for New York City Jobbing House. Coarse paper and twine. Only men who are thoroughly experienced in this line need apply. Excellent opportunity for the right party. Salary and percentage of profits. Address, Box 4479, care Paper Trade Journal. O-6

**WANTED**—First Class Machine Tender, \$6.00, and Back Tender, \$4.00 per day. Two tours on Test Container. Give particulars of experience. Married men preferred. Address, Box 4480, care Paper Trade Journal. O-6

**WANTED**—Superintendent. Experienced on Container and Combination Boards. Must be first class in mill construction and maintenance. Be able to handle help and get results. Central territory, large mill. Good opportunity for right man. Address, Box 4481, care Paper Trade Journal. O-20

**WANTED**—Night Superintendent. Box-board mill in Middle West. Must understand container and combination boards and be able to handle help. Good position for right man. Address, Box 4482, care Paper Trade Journal. O-20

**COAL SALE AGENTS**—A Coal Company with a large bituminous tonnage desires agents in various localities to sell coal to manufacturers and others on a commission basis. Send references. Address, Box 4485, care Paper Trade Journal. O-20

**WANTED**—Man to operate Laminating Machine for combining 2 to 6 ply Jute Board. Must be A-1 man. Give full particulars and references in first letter. Address, Box 4487, care Paper Trade Journal. O-6

**WANTED AT ONCE**—Cost Clerk, capable of handling cost work for Board Mill. Must be experienced and capable of taking charge of Mill Office routine. No application will be considered without best of references. Bond necessary. Address, Box 4488, care Paper Trade Journal. O-13

**WANTED**—Fourdriner Machine Tender. Must be experienced on Manila, Water Finish Fibres and Specialties. 8 hour basis. Good living conditions and steady work. Give experience and reference. Address, Box 4489, care Paper Trade Journal. O-6

**WANTED**—Toliet Paper Operator for Hudson and Sharpe Perforator. Must be a hustler and capable of keeping machine in order. Address, Paper Service Co., Inc., Hinesdale, N. H. O-6

## HELP WANTED

**WANTED**—Man having experience in selling Toilet Papers to direct sales in Philadelphia and surrounding territory by Philadelphia Paper House not in this line at present. All applications will be treated confidential. Address, Box 4504, care Paper Trade Journal. O-6

**WANTED**—Millwright, state experience. The Champion Coated Paper Co., Department of Industrial Relations, Hamilton, Ohio. O-6

**WANTED**—Young man with knowledge of Chemistry and familiar with Paper Industry, to sell Chemical Specialties. Good chance for the right man. Address, Box 4505, care Paper Trade Journal. O-6

**SALESMAN**—A Swedish man with agencies for a couple of Reputable Swedish Paper Manufacturers, making highest grade Kraft Paper, Newsprint, etc. Must be honest, good salesman and correspondent. Small capital desirable, but not necessary. State age, reference and other particulars. Address, Box 4506, care Paper Trade Journal. O-6

**PAPER AND TWINE SALESMAN** for New York City. To a man who has been successfully selling in this territory, we can turn over a large volume of business of a man who is now employed in the paper and twine business, and familiar with buyers and wants to make a change. L. Hyman & Sons, 121 Spring St., New York City.

**WANTED**—Machine Tender running Specialties, 8-hour shift. Address, Box 4511, care Paper Trade Journal. O-6

## SITUATIONS WANTED

**SUPERINTENDENT** desires position. 20 years' experience on all grades of Combination and Container Board familiar with repairs, maintenance and operation of every department. Knows how to get quality and production. Can furnish the very best of references. Address, Box 4347, care Paper Trade Journal. O-13

**PAPER SALESMAN**, New York City, wants connection with Mill Agency Company. Can produce large amount of business, with right kind of cooperation. Drawing account on commission basis. Correspondence invited with responsible agencies. Address, Box 4503, care Paper Trade Journal. O-13

**MASTER MECHANIC** desires position. Expert Construction, Reconstruction. Installing Equipment and Economical Maintenance. Ground Wood and Sulphite from the log to finished product. Fourdriner machines making Book Bond, News and Specialties. Cylinder Machines making Board, Bristol and Tissue Specialties, using water, steam and electric power. Address, Box 4425, care Paper Trade Journal. O-27

A PRACTICAL PAPERMAKER WHO HAS GIVEN SPECIAL ATTENTION TO THE RECLAMATION OF PULP FROM OLD PAPER STOCK AND WHO HAS JUST PERFECTED A PROCESS FOR THE ABOVE PURPOSE WOULD LIKE TO GET IN TOUCH WITH SOME MANUFACTURER WHO IS HAVING TROUBLE IN HANDLING OLD PAPER OR CONTEMPLATING THE USE OF SAME AS A RAW MATERIAL. ADDRESS BOX 4495, CARE PAPER TRADE JOURNAL. O-13.

## SITUATIONS WANTED

**WANTED**—Situation as superintendent of mill making Binders, Friction and other Boards. Have been successful in building and repair work. Address, Box 4426, care Paper Trade Journal. O-13

**GENERAL SUPERINTENDENT**, experienced making Boxboards, Coarse Paper and Chemical Pulp, is open for engagement with established or new concern. Organizer and Executive. Address, Box 4428, care Paper Trade Journal. O-6

**WANTED**—Position as Machine Tender by reliable married man. Experienced on all grades of Boxboards. Can furnish references. Address, Box 4446, care Paper Trade Journal. O-13

**POSITION WANTED**—By Superintendent of 20 years' experience in mill making news, Manillas, Water and Dry Finish Fibres, Sulphite and Sulphate Test Papers. Good organizer and executive. Best of references furnished. Address, Box 4461, care Paper Trade Journal. O-27

**SULPHITE MILL SUPERINTENDENT** with wide experience in the manufacture of Bleached and Unbleached, Hemlock and Spruce Pulp. Understand all acid systems and latest methods of cooking. Specialized in production of Strong Fiber. Familiar with repairs, maintenance, and know how to handle men to get results. Best of references furnished. Address, Box 4462, care Paper Trade Journal. O-13

**YOUNG MAN**, 24 years old, desires connection with Paper House in New York City or vicinity. Possesses general knowledge of Writings, Bonds, Coarse Papers, etc. also two years' mill experience in all branches of cost accounting. Capable of filling position in Accounting or Sales Department. Address, Box 4475, care Paper Trade Journal. O-13

**THOROUGH SUPERINTENDENT** desires position, experienced on tissues, all grades, Crepe, Semi-Crepe, Toilet, Towels, Napkins, Fourdriner and Cylinder Machines. High grade man on Kraft and Kraft Specialties, Waxing Tissues, plain and colored, Twisting Fibres, A-1 on Colors. Thoroughly understand the conversion of Waxing Tissues and Colored Crepe Papers. Good organizer. References furnished. Address, Box 4431, care Paper Trade Journal. O-13

**POSITION WANTED** as Boss Heaterman, Assistant Superintendent or Night Boss. Well up on Box Board and nearly all other grades. A-1 on colors. Address, Box 4490, care Paper Trade Journal. O-13

**PAPER MILL SUPERINTENDENT**, with long practical experience on Roofing Felt, would like to change position. Thoroughly understands repairs, construction and rebuilding. Address, Box 4492, care Paper Trade Journal. O-20

**SUPERINTENDENT** desires position in Felt Roofing or Asbestos Roofing Mill. 15 years' practical experience. Can furnish best of references. Address, Box 4493, care Paper Trade Journal. O-6

**SALES CORRESPONDENT AND EXECUTIVE** open for proposition. Five years' experience with Glassine and Vegetable Parchment manufacturer. Familiar with Jobbing Trade throughout country, especially Eastern States. Address, Box 4496, care Paper Trade Journal. O-6

**WANTED POSITION** as assistant Superintendent or Tour Boss. Would consider running Machine. Have had 17 years' experience on Box Board Machines and Combination Boards, and well up on High Test Containers. Address, Box 4498, care Paper Trade Journal. O-13

## SITUATIONS WANTED

**PAPER BUYER**, familiar with the various grades and technicalities of paper, sources of supply, trade customs, etc., seeks position. Three years' experience with Export Paper House as buyer and correspondent. Address, Box 4501, care Paper Trade Journal. O-6

**POSITION WANTED**—Mill Superintendent, cylinder machines. Have had many years experience on Felt Wrapping and Anstons Papers. Familiar on Construction, Remodeling and Repairs. New England preferred. Address, Box 4507, care Paper Trade Journal. O-13

**SITUATION WANTED** by a Beaterman experienced on Book and Specialties on all lines of stock. Am experienced on making and matching colors. Address, Box 4513, care Paper Trade Journal. O-6

**WANTED SITUATION** by a first class Lead Burner in a Sulphate Mill. Have had some experience in Shop and on Machines. Address, Box 4514, care Paper Trade Journal. O-6

**POSITION WANTED** as Superintendent or Assistant or as Machine Tender on slow running machine by man with 25 years' experience on all grades of Cylinder Papers. First class references. Address, Box 4512, care Paper Trade Journal. O-6

## MISCELLANEOUS

**WANTED**—To get in touch with Paper Bag Manufacturer making self-opening Bags for Southeast organization. Can handle three to five cars month. Must be in position to give exclusive agency and be able to take care of business. Address, Box 4470, care Paper Trade Journal. O-6

## Classified Advertising BRINGS RESULTS

## FOR SALE

**FOURDRINIER PART**—One 90" P & J Fourdrinier part with Millpaugh suction couch roll and pump, 40 ft. wire.  
**JORDANS**—Several Horse and Emerson on way to our works. One Noble & Wood; two No 1 Claffins.  
**KOLLERGANGS**—One kollerengang, size of stone 36" x 14" face.  
**PULLEYS**—One 97" dia x 34", double arm, modern pulley. Large cone pulleys. Large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches. Also steel pulleys.  
**PUMPS**—One dry suction, single vacuum, 12 x 22 x 18 Knowles; one 1,000 gallon Blake Tank Pump; several 7" and 8" Lawrence Machine Company, Class A, High Duty Pumps, Fan Pumps, new stock pumps, single and double.  
**PRESS ROLLS**—Large number of different sizes on hand. Some suitable for rubber covering. Six rolls about 15" x 98" just received. Some brass and some rubber covered.  
**ROTARIES**—Two 84" x 22" horizontal.  
**REELS**—One two-bowl 58" face. Several new ones going through works. State which you desire.  
**RAG CUTTERS**—One Daniels No 2, one Taylor & Siles.  
**SLITTERS**—Two Dietz Slitters.  
**SCREENS**—One 10-plate open side Packer with plates, one 12-plate open side Packer with practically new plates. Three Ruth centrifugal.  
**WINDERS**—One 80" single drum P & J make; one 100" double drum, P & J make.

Advise us of your wants

**MILLS MACHINE COMPANY**  
LAWRENCE, MASS.

## MISCELLANEOUS

**FLOOR SPACE FOR RENT**—In Chicago. Large enough to hold about five carloads Paper Bags or Allied Lines. Located in loop, with all railroad service. Fine proposition for Chicago representative wanting to carry stock. Can furnish facilities for handling. Address, Box 4474, care Paper Trade Journal. O-13

## AM INTERESTED IN USED MACHINE

MAKING FINE SEERATED OR STRAIGHT CUT BAGS FOR CANDY, SALTED PEANUTS, ETC. WITH PRINTING ATTACHMENT. RECENT MAKE PREFERRED OR WILL PURCHASE OUTRIGHT SMALL GROWING PLANT MAKING THESE STATE CAPACITY OF MACHINE. PRICE, ETC. ADDRESS, BOX 4510, CARE PAPER TRADE JOURNAL. O-6

## WILL BUY SURPLUS STOCK FOR CASH

KRAFT NO 1—25 TO 50 LB  
TISSUE NO 1 AND 2 WHITE  
TISSUE NO 1 WHITE AND COLORS  
BOHUS 40 X 45 150  
L. HUMAN & SONS,  
121 SPRING ST.,  
NEW YORK N. Y.  
O-6

## WE OFFER

Unusual opportunity to pulp and paper makers. Must know books, Writings, bonds, also cotton linter pulp. Cotton linters, waste papers and rags our abundant and cheap raw material. The growing South-West consumes \$3,000,000 in paper annually and plants located here will have tremendous advantages in freight rates. Pulp Plant at Commerce ready for operation, plant at Fort Worth under construction, will also build in Dallas and Houston. Company can secure ample capital to back experienced men who have the courage to back their own judgment with an investment. Send full particulars immediately to

**TRINITY PAPER MILLS,**  
Dallas, Texas.

## MISCELLANEOUS

**WANTED TO BUY**—One Machine Mill, preferably Fourdrinier. In response state condition of mill and full equipment and product at present manufacturing. Replies treated strictly confidential. Address, Box 4502, care Paper Trade Journal. O-6

**WILL PURCHASE FOR CASH**, small, one Machine Mill, preferably Fourdrinier, within three hundred miles of New York. Must be in good condition. Send full particulars to Manitou Paper Co., Inc., Broadway, 73rd St and Amsterdam Ave., New York City.

**WANTED**—One Toilet Machine to make rolls four and one half by four and three quarters, wide enough to handle seventy inch Jumbo Rolls. State price, condition and where can be seen. Address, Box 4509, care Paper Trade Journal. O-13

## FOR SALE

**FOR SALE**—Roofing and Saturating Machines, 72"x36" wide. Chilled steel rolls. Also Painter Mixing Machine, Grinders, etc. Address Box 4310, care Paper Trade Journal. O-6

**FOR SALE**—3 Dryers, 28" x 52", complete with frames, felt and rolls, gears, two cone pulleys and steam connections. Address, Box 4386, care Paper Trade Journal. O-6

**SWEDISH PRINTING PAPER**, good quality, below market price. Rolls, 25 1/2 broad, 400 tons. Sheets, 22 1/2 x 33 inches, 59 tons, and 36 1/2 x 55 inches, 116 tons. Address, Box 4500, care Paper Trade Journal. O-6

**FOR SALE**—One 600 H.P. Sarge-Cochrane Hot Water Softener, capacity 2,000 gallons per hour, complete with chemical solution tank, feed apparatus, filter, etc. Address, Draycott Mills, Inc., Fulton, New York. O-20

**FOR SALE**—Lancon Pulper, in first class condition, also Sheet Cutters and 1000 lb Jones Beaters. Address, Box 4508, care Paper Trade Journal. O-13

## Rebuilt Paper Mill Machinery -In Stock and Guaranteed Not Where Is and As Is

**FOURDRINIER PAPER MACHINE** One 112", one 96" one 72"  
**FOURDRINIER PARTS** Pusey & Jones 137", 118" 117", 108"  
**PRESS PARTS FOR PAPER MACHINES** Pusey & Jones Bell Crank housing two sets 18" x 114", three sets 18" x 110", two sets 18" x 96", Black & Clawson Swing Arm housings with rolls.  
**DRYERS** Four 48" x 111", sixteen 48" x 106", ten 48" x 68", one 84" x 67"  
**MARSHALL DRIVES** 8 Black & Clawson self-contained stand with friction clutch cone pulley and 6" x 7" mortise gears. Mortise gears and pinions for Pusey & Jones Marshall drives 5" to 8" face.  
**TYLLED CALENDERS** One 60" face, five roll; one 41" face, five roll.  
**DILLON DOCTORS** for Machine Calenders 60" to 170" face.  
**SLITTERS AND WINDERS** One 120" Warren, one 87" Pusey & Jones two drum, one 108", 14", 36" Kidders.  
**REELS** Pusey & Jones two drum upright 84" to 114"  
**BEATERS** Six 72" x 42" Noble & Wood, four 66" x 42" Noble & Wood, equipped with three-cylinder washers; one Dills 62" x 50" iron tub, one Jones 6" x 52", eight Horne 36" x 36".  
**JORDANS** One Wagg Majestic, three No 2 Dillon Improved, one Large Horne, five Monarch, one Pony Monarch, two Pope Brushing Engines.  
**SCREENS** Four 12 plate open-side Packer.  
**STIFF PUMPS** Deane Triplex 5" x 12", Gould Triplex 8" x 10", Sandusky Triplex 4" x 6".  
**REVOLVING SHEET CUTTER** One 104" Horne, one 84" Clark, one 74" Finlay, one 50" Hamblet Diagonal, two 42" Finlay.  
**WET MACHINES** Four 72" Bagley & Sewall Hydraulic.

**FRANK H. DAVIS COMPANY**  
175 Richdale Avenue  
CAMBRIDGE, 40, MASS.

## GIBBS-BROWER BULLETIN

### We Have Paper Mills For Sale

Also Two Used Fourdrinier Paper Machines Trimming Respectively 80" and 68" in A-1 Condition. Can Be Inspected in Operation.

#### FIRST PAPER MACHINE:

One Pusey and Jones Fourdrinier part complete for wire 80" x 40' 8". Two presses 24 drivers, 36" diam x 83" face, complete, double deck. One nine-roll stack of calendars. One Sharple Bros. two spool upright reel. One Moore & White four-drum slitter and rewinder. Marshall drive with all back stands and drives complete. Now running on Bond and Envelope. Delivery October 15th. Price \$25,000.

#### SECOND PAPER MACHINE:

One Black and Clawson Fourdrinier part complete for 75" x 50' wire. Two presses 22 drivers, 36" diam x 72" face, complete, double deck. One six-roll calendar stack. One two spool upright reel. One two-shaft Manning Winder and Slitter. Marshall drive for variable speed, complete with Erie No. 9 Variable Speed Twin Engine. Now running on Envelope Paper. Delivery January 1st. Price \$12,500.

### GIBBS-BROWER COMPANY

Paper and Pulp Mill Brokers

261 Broadway, New York City

Telephone—Barclay 8020

OUR MOTTO—"Service First"

## Binders for Paper Trade Journal

\$1.50 Each, Postpaid

PAPER TRADE JOURNAL binders will hold an average of thirteen copies each. Figure four binders for a year's copies. Each issue, as received, can be securely fastened in the binder, by a very simple arrangement, and will open like a book.

Made of heavy book board, insuring durability. Covered with strong, black book cloth that will stand the hardest usage.

If you wish to preserve your valuable copies of THE PAPER TRADE JOURNAL for future reference, you cannot afford to be without these binders.

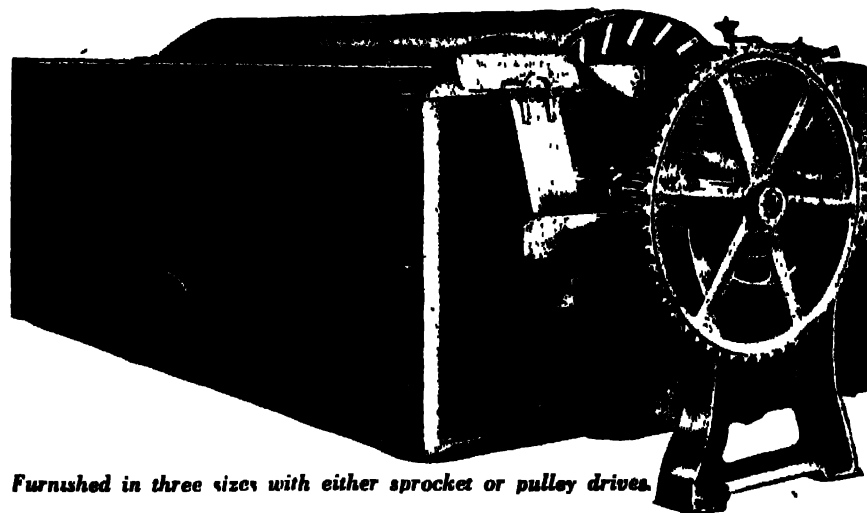
\$1.50 Each, Postpaid

The Lockwood Trade Journal Company, Inc.  
10 East 39th Street New York

## THE WOOD'S MACHINE

Distinctive performance and intensified confidence in this machine as a Pulp Thickener, Save-All, Washer or Water Filter insure success in its building.

On the market but a few years, our installations number more than Eighty-five. Twenty-nine sold the past year.



Furnished in three sizes with either sprocket or pulley drives.

MADE BY  
**GLENS FALLS MACHINE WORKS**  
GLENS FALLS, N. Y.

Try our Split Cams for your Flat Screens

**SIMPLICITY**, in cylinder and vat construction, operation automatic, and without couch roll, doctor or any complicated moving parts.

**DEPENDABILITY**, in its simple revolving cylinder only, with nothing to get out of order, requiring little attention, and having a patented principle of maintaining wires always clean, insuring continuous performance.

**PRODUCTIVENESS**, enormous, through clean wires, large screening surface, patented unique method of discharge and freedom from shut-downs.

**DURABILITY**, by rigid construction, ample bearing surfaces, nothing to injure wires and highest grade materials.

All these enhance its value and involve upon you the duty of investigation.

**Architects and Engineers**

**CAREY, JAMES L.**, Paper Mill Architect and Engineer, 208 North Laramie avenue, Chicago, Ill.

**CAPMAN, C. A., Inc.**, Paper Mill Architects and Engineers, 28 Jackson Boulevard E., Chicago, Ill.

**SNOW, S. M.**, Mill Architect, Engineer, Paper and Pulp Mills. Steam and Water Power Plants 55 Kilby street, Boston, Mass.

**Rags, Paper Stock, Etc.**

**PERLOWITZ, PAUL**, 132 Nassau street, New York. Importer of Rags, Haggings, New Cuttings.

**FLYNN, MICHAEL**, 54 Columbia street, Brooklyn, N. Y.

**GOLDSTEIN, R. & SON**, 1162 Scott Street, Baltimore, Md. Cotton Rags and Paper Stuffs

**HILLS, GEO. F.**, 236 South Street. Branch House, 276 W. 25th street N. Y.

**LIVERPOOL MARINE STORE CO.**, Liverpool, England. L.M.S. Wood Tag, Manila Rope and Star Brands (Registered)

**SIMMONS, JOHN, SONS**, Paper and Paper Stock, 28 and 30 South Marshall street Philadelphia, Pa.

**MISCELLANEOUS****Bale Ties**

**WILSON, H. P. & H. F.**, Manufacturers of Steel Wire Bale Ties, for baling all compressible material. 544 West 22nd street New York City

**Boards**

**MILLER PAPER CO.**, FRANK P., high grade specialties. Boards East Downton, Pa.

**Special Machinery**

**SWIFT, GEORGE W., JR.**, Designer and Manufacturer of Special Machinery for Manufacturing and Printing Paper Goods Bordentown N. J.

**BOOKS ON PAPER MANUFACTURE**

Subscriptions are being taken for the new Textbooks on the Manufacture of Pulp and Paper of the Joint Committee on Vocational Education of the Pulp and Paper Industry, a complete set of which should be owned by every firm or individual connected with the industry.

The set will be complete in five volumes. Volumes I and II deal with arithmetical operations, elementary mathematics, drawings, etc. Volumes III, IV and V, to be issued shortly, will deal with pulpwoods and their preparation; manufacture of pulp; analytical methods; and paper manufacture in all its aspects.

Volumes I and II are now on sale at \$5.00 a volume. In the selection of classroom problems bearing on the principles and practice of pulp and paper manufacture they represent the highest standard in textbook publishing.

Orders, with remittances, will be filled by the Technical Association of the Pulp and Paper Industry, 18 East Forty-first Street, New York.

**Blotting Paper of the Best Quality**

MANUFACTURED BY

**THE EATON-DIKEMAN COMPANY**

LEE, MASS.

Manufacturers of Blotting, Matrix, Filter and all other grades of absorbent papers.

Registered brands Magnet and Columbian, also Lenox and Arlington.

SEND FOR SAMPLES AND PRICES

**The Northern Wood Supply Co.**

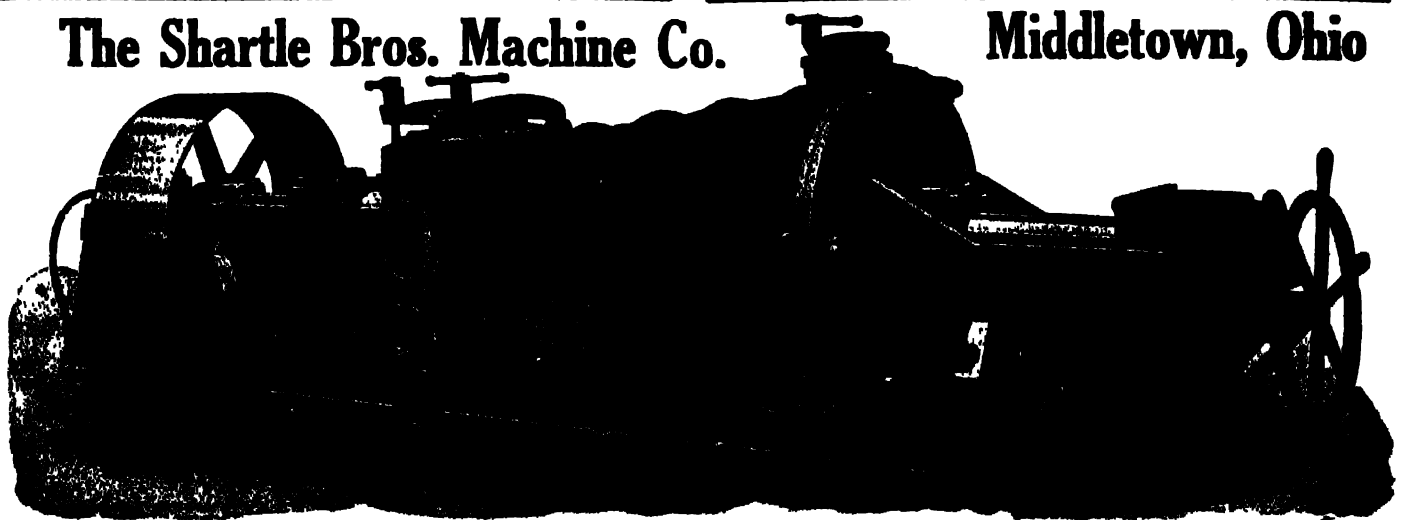
GENERAL

**Pulpwood Dealers**

Heavst, Ontario, Canada

*Correspondence Invited*

ALL CLASSES OF PULPWOOD

**The Shartle Bros. Machine Co.****Middletown, Ohio**

**FREDERICK L. SMITH**

21 EAST 40TH STREET, NEW YORK

**PULP AND PAPER MILL  
ENGINEER****GEORGE F. DREW****MILL ARCHITECT AND ENGINEER**  
BRUNSWICK, MAINEFor the past 22 years Chief Engineer for the Peapack Paper Co.  
**SPECIALTY:** Pulp, Paper and Saw Mills  
Cotton, woolen, worsted, cordage, silk mills, and their equipment.  
Appraisals, adjustments.**V. D. SIMONS****INDUSTRIAL ENGINEER**Pulp and Paper Mills, Hydro-Electric and Steam Power Plants  
Electrification Paper Mill Properties  
39 S. La Salle St., Chicago**H. B. PRATHER****CONSULTING ENGINEER****CONSULTATIONS      REPORTS      ESTIMATES**  
Complete Designs Pulp and Paper Mills—Steam and Electric  
Power Plants—Equipments  
600 ROCKEFELLER BLDG., CLEVELAND, OHIO**HARDY S. FERGUSON** CONSULTING  
ENGINEER.Member AM. SOC. C. E., Member AM. SOC. M. E.,  
Member Eng. Inst. Can.

280 FIFTH AVENUE, NEW YORK CITY

Paper, Pulp and Fibre Mills, Including Building and Complete  
Mechanical Equipment, Water Power Development, Dams,  
Storage Reservoirs and Other Hydraulic Structures,  
Examinations, Reports, Estimates of Cost, Designs,  
Specifications, Valuations**WILLIAM T. FIELD****Consulting Engineer**286 Broadway,  
New York, N. Y.Flower Bldg.,  
Watertown, N. Y.**DESIGNS****ESTIMATES****REPORTS****GEORGE F. HARDY**M. AM. SOC. C. E., M. AM. SOC. M. E., M. ENG. INST. CAN.  
*Mill Architect and Consulting Engineer*

Langdon Building, 309 Broadway, New York

**SPECIALTY:** Paper, Pulp and Fibre Mills, Water Power Develop-  
ments, Steam Power Plants, Plans and Specifications  
Evaluations, Reports, Consultation  
Cable Address "Hardstock," A B C 5th Edition, Bedford, McNeill  
Western Union—Bentley's.**VITALE & ROTHERY****FOREST ENGINEERS**

527 Fifth Avenue

New York, N. Y.

**J.H. WALLACE  
& COMPANY.**  
TEMPLE COURT BUILDING  
NEW YORK CITY, U.S.A.  
CABLES: "TRIFLEX" NY**PULP  
PAPER  
AND  
POWER  
PLANTS****ENGINEERS  
& CHEMISTS**  
INDUSTRIAL DESIGN  
PLANT IMPROVEMENT  
LABORATORY TESTS**TIMBERLAND SERVICE**

Estimates      Maps      Graphic Methods

**JAMES W. SEWALL, Forest Engineer**Old Town, Me.    Sanford, Fla.    Munsey Bldg., Washington, D. C.  
*Largest Cruising House in America***JOHN F. CARRIGAN ENGINEERING**Consulting and Sales Engineering  
**POWER IS OUR SPECIALTY**

Estimates, Reports, Detail Plans of Power Plants.

**CARRIGAN STOKERS** for any BOILER, 50 to 300 H. P.**AUTOMATIC HOT WELLS** specially designed for PAPER MILLS.  
504 CUNARD BLDG., CHICAGO, ILL.**THOMAS L. TOMLINES & SON**  
**CONSULTING ENGINEERS**ASSOC. M. AM. SOC. C. E.;    317-319 CITY BANK BLDG.,  
M. AM. SOC. M. E.    SYRACUSE, N. Y.  
Paper, Pulp and Fibre Mills, Hy-    Steam Power Plants, Plans and  
draulic Developments, Hydro-    Specifications, Efficiency  
Electric Plants    Engineering**CONSULTATION AND REPORTS****Timber Lands Bought and Sold.**  
**Timber and Pulp Wood Estimates.****R. R. BRADLEY,**  
*Consulting Forester*

58 Telegraph Building, Hospital St., Montreal, P. Q.

**HERBERT S. KIMBALL**

M. Am. Soc. C. E.

**CONSULTING ENGINEER**

79 Milk Street, Boston 9, Mass.

Investigations and reports relating to the pulp and paper industry. Special atten-  
tion to the design of chemical equipment in Sulphite and Soda mills. Paper  
machine room construction and ventilation; plans for buildings and equipment.**SANFORD RILEY STOKER CO.**  
WORCESTER, MASS**RILEY  
STOKERS**

BOSTON

NEW YORK  
CINCINNATI*"A type to meet every stoker need"*PHILADELPHIA  
CHICAGOPITTSBURGH  
ST. PAUL**MURPHY IRON WORKS**  
DETROIT, MICH.**MURPHY  
FURNACES**

BUFFALO

DENVER

CLEVELAND

## STEBBINS ENGINEERING & MFG. CO. WATERTOWN, NEW YORK, U. S. A.

*Manufacturers of*

STEBBINS ACID SYSTEMS  
DIGESTER LININGS,  
BRONZE, LEAD AND  
IRON FITTINGS, SUL-  
PHUR MELTERS, BURN-  
ERS, COMBUSTION  
CHAMBERS AND RE-  
CLAIMERS, BLEACHING  
SYSTEMS.

### SPECIALTIES

We design, build, com-  
pletely equip and put into  
operation

PAPER, SULPHITE  
AND SODA PULP  
MILLS

PACIFIC COAST  
REPRESENTATIVES  
SCOTT & MORGENIER  
184 Bacon Bldg., Oakland, Cal.

## THE MANAGEMENT ENGINEERING AND DEVELOPMENT CO.

7TH FLOOR CITY NATIONAL BANK BLDG.,  
DAYTON, OHIO.

DESIGN, CONSTRUCTION AND OPERATION  
OF  
PULP, PAPER AND FIBRE MILLS  
WATERPOWER DEVELOPMENT  
STEAM POWER PLANTS.

PLANS AND SPECIFICATIONS  
EVALUATIONS AND REPORTS  
• • CONSULTATIONS • •

## HEINE LARGE UNIT BOILERS

Longitudinal Drum Water Tube  
Boilers.

Cross Drum Water Tube Boil-  
ers.

Boiler Casings, Steel Stacks.

All Heine Boilers conform to A.S.M.E. Boiler Code.

Catalogs Gladly Sent on Request

HEINE BOILER COMPANY  
ST. LOUIS U. S. A.



"WATERBURY"

Felts-Jackets

ORISKANY, N. Y.

OUR TIGHT FITTING, DIAMOND "W" JACKETS  
WILL NOT LICK UP AT ANY SPEED

1869 {MADE ONLY BY} 1921  
{GUARANTEED BY}

H. WATERBURY AND SONS COMPANY, ORISKANY, N. Y.

## SLITTERS and SPECIAL MACHINES

for use in paper industry

C. BENNINGHOFEN & SONS

Hamilton, Ohio

Send us your requirements regardless of what they may be.

## Samuel M. Green Company

*Engineers*

CHLORINE and BLEACH  
SPECIALISTS



SPRINGFIELD,

MASS.

ESTABLISHED 1851

IRA L. BEEBE

CYRUS E. JONES

IRA L. BEEBE & CO.

132 Nassau St., New York

IMPORTERS AND DEALERS IN



WOOD PULP

## R. L. STEVENS, Jr., Woolworth Building, New York

EXCLUSIVE EASTERN REPRESENTATIVE OF THE RHINELANDER PAPER COMPANY

Glassine, Greaseproof, Manifold Parchment, Dry Finish Butchers', Machine Glazed Sulphites, 10 to 40 lb. basis, Special papers for Creping and Waxing, together with other Specialties; general line of Wrappings.

**LAWRENCE  
GROCERS' BAGS**



Old Style Squares—Prompt Shipment—  
Improved Self-opening—Late October Shipment  
The Lawrence Bag Company, Miamisburg, Ohio

**LAWRENCE  
GROCERS' BAGS**

**Penn Paper and Stock Company****PACKERS OF ALL GRADES OF  
WASTE PAPER**

240 N. FRONT STREET

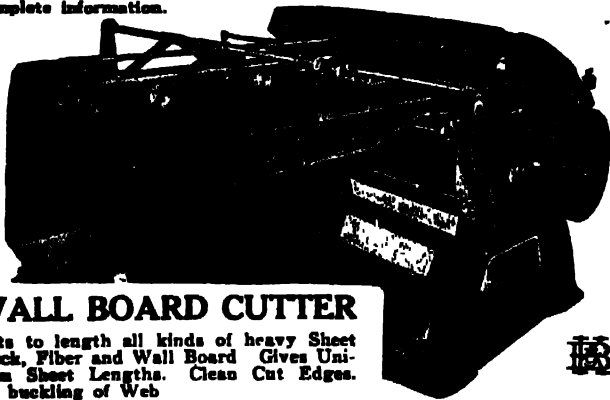
PHILADELPHIA

**Job Lots, Rejections, Side Rolls Wanted**

**SPOT CASH** paid for jobs in bond paper, white or colors, any grade that will cut down to 11x17, any weight. Send samples, with lowest spot cash prices. No lot too small, and none too large.

**MIDWEST PAPER CO., 712 Federal Street, Chicago, Ill.**

Write today for  
complete information.

**WALL BOARD CUTTER**

Cuts to length all kinds of heavy Sheet Stock, Fiber and Wall Board Gives Uniform Sheet Lengths. Clean Cut Edges. No buckling of Web

**M. D. KNOWLTON CO., 22 Elizabeth St., Rochester, N. Y., U. S. A.****ALUM****FOR THE PAPER MAKER**

Manufactured by

**The Jarecki Chemical Co.****QUALITY SERVICE**

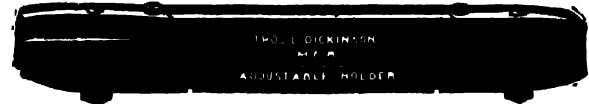
Sole Selling Agents

**ISAAC WINKLER & BRO.****CINCINNATI :: :: NEW YORK****WINDERS**

AND

**REWINDERS****SAMUEL M. LANGSTON COMPANY  
CAMDEN, N. J.****CAMACHINE****SLITTERS AND WINDERS****CAMERON MACHINE CO. BROOKLYN N.Y.****WILLIAM B. DILLON****DILLON & BARNES***Paper Mill Products and Supplies***52 VANDERBILT AVENUE****NEW YORK**

Telephone, 7353 Murray Hill

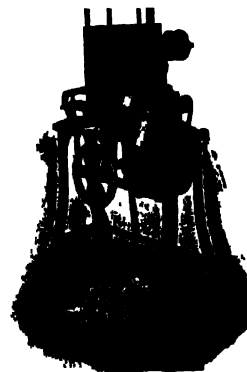


Special Shaped Carbon, Black Diamond **POINTS FOR TURNING** Paper, Cotton, Chilled Iron and Hardened Steel Calendar Rolls, Hard Rubber, Fibre, etc.

Manufactured by **THOS. L. DICKINSON,** 86 Gold St., NEW YORK

Successor to John Dickinson, Established 1796.

Agents for Great Britain **C. W. BURTON, GRIFFITHS & CO.,**  
1udgate Square, London

**GRISSINGER**

Patented

**AUTOMATIC  
TUBE  
MACHINE**

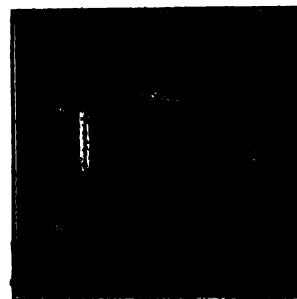
Wire Stitched Tube

**TOILET PAPER  
MACHINERY****GRISSINGER MACHINE WORKS  
PHILADELPHIA, PA.**

Patented { June 24, 1913.  
August 10, 1915

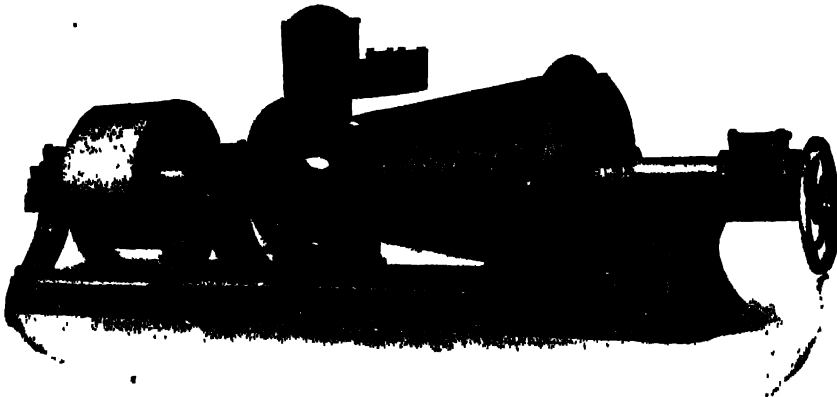
**“DRAPER”  
FELTS***For Any Grade of Paper or Pulp***ARE GUARANTEED***To Give Entire Satisfaction*

MANUFACTURED BY

**DRAPER BROS. CO., CANTON, MASS.****NEW ENGLAND TANK & TOWER CO.****WOOD TANKS  
FOR ALL  
PURPOSES**

Everett Station, Boston, Mass.  
New York Office, 30 Church St.

# THE DILLON JORDAN



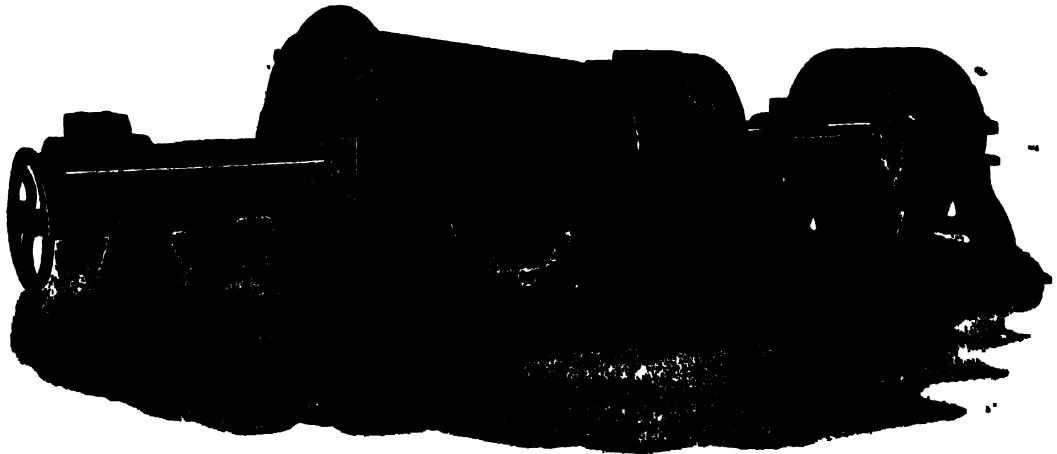
Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Outside stand fitted with gauge to keep the plug central with the shell.

*For full particulars apply to*

**DILLON MACHINE CO., Inc.**  
Builders of Paper Mill Machinery  
Lawrence, Mass.

**WE MAKE  
BEATERS AND  
JORDANS OF  
QUALITY**

**SIX SIZES OF  
JORDANS,  
BEATERS,  
FROM ¾ LBS.  
TO 3000 LBS.**

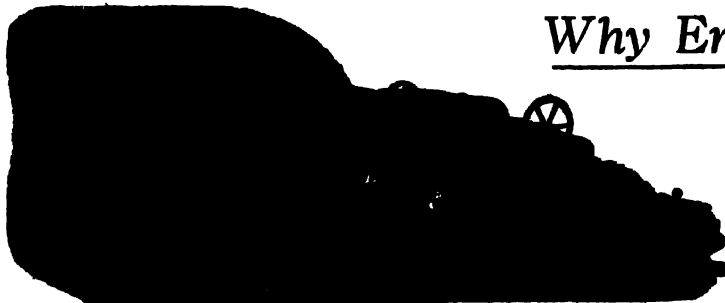


**The Noble & Wood Machine Co., Hoosick Falls, N. Y.**

## Fourdrinier and Cylinder Paper Machines

Why Enlarge Your Beater Room?

Why Add More Power?



All arrangements on present patents and patents to be issued  
will be vigorously prosecuted

This beater reduces stock to fibre of equal or better quality in half to one quarter of the time and with a saving of power which is remarkable. Do not take our word. Investigate. Manufactured by

**MILLS MACHINE COMPANY . . . Lawrence, Mass., U. S. A.**  
Builders of all kinds of paper mill machinery

## CLASSIFIED INDEX TO ADVERTISEMENTS.

	Page		Page		Page
<b>ADDING MACHINE ROLLS.</b>	50	<b>CASEIN.</b>	3	<b>FELTS AND JACKETS (Cont'd.).</b>	49
Paper Manufacturers Co.	50	Casein Mfg Co.	3	Gir Felt & Blanket Co.	49
<b>AGALITE.</b>	55	<b>CHEMICALS, COLORS, ETC.</b>	7	Shuler Henschel Co.	49
Union Talc Co.	55	Arnold, Hoffman & Co., Inc.	7	Waterbury Felt Co.	6
U. S. Talc Co.	56	Heller & Mery Co.	7	Waterbury & Sons Co.	69
<b>ALUM.</b>	5	Du Pont de Nemours & Co.	Front Cover	<b>FILTERING SYSTEMS.</b>	5
The Kalbfleisch Corp.	5	Kuttruff Pickhardt & Co.	5	Norwood Engineering Co.	5
Pennsylvania Salt Mfg Co.	61	Newport Chemical Works	5	<b>FLOOR COVERINGS.</b>	—
Superior Chemical Co.	70	Sandor Chemical Works, Inc.	76	I. Sonneborn & Sons.	—
Winkler Bros., Inc.	70	C. K. Williams & Co.	76	<b>FLOOR HARDENER (Concrete).</b>	—
<b>ALUMINUM SULPHATE.</b>	—	<b>CLAY.</b>	61	I. Sonneborn & Sons.	—
Aluminum Chemical Co.	—	Attchutty Bros.	51	<b>FOURDRINIER WIRES.</b>	76
<b>ARCHITECTS AND ENGINEERS.</b>	68	John W. Hignam Co.	76	Appleton Wire Works.	76
John F. Carrigan.	68	Star Clay Company	76	Buchanan Bolt & Wire Co.	72
George F. Drew.	68	<b>COAL MINING.</b>	—	Cable Excelsior Wire Mfg. Co.	76
Hardy S. Ferguson.	68	Empire Coal Mining Co.	—	Cheney, Bigelow Wire Works	55
William T. Field.	68	<b>COGS.</b>	76	Eastwood Wire Mfg. Co.	76
George F. Hardy.	68	N. P. Bowsher Co.	76	Thomas E. Gleeson	56
Herbert S. Kimball.	68	<b>COMPRESSORS (Air).</b>	45	Lindsay Wire Works.	—
Management Engineering and Development Co.	69	The Nash Engineering Co.	45	Jos. O'Neill Wire Works	51
H. H. Prather.	68	<b>CORDAGE.</b>	—	The W. S. Tyler Company.	56
V. D. Simons.	68	Columbian Rope Co.	—	<b>FURNACES (Automatic).</b>	68
F. L. Smith.	68	<b>CUTTING MACHINERY.</b>	70	Murphy Iron Works	68
Stebbins Engineering Co.	69	M. D. Knowlton Co.	70	<b>GAUGES (Pressure, Indicating and Recording).</b>	—
Thomas L. Tomlins & Son.	68	<b>DIE CUTTERS.</b>	2	Bristol Co., The.	—
Vitale & Kothery	68	Hogson & Pettis Mfg. Co.	2	Manning Gauge Co.	—
Joseph H. Wallace & Co.	68	Independent Die Co., Inc.	—	The Foxboro Co., Inc.	54
<b>ASBESTINE PULP.</b>	Front Cover	<b>DIGESTERS.</b>	6	<b>GUMMING AND GLUING MACHINERY.</b>	63
International Pulp Co.	Front Cover	American Welding Co.	6	Potlavin Machine Co.	63
<b>BALL BEARINGS.</b>	25	M. W. Kellogg Co.	—	<b>HEATERS.</b>	9
S. K. Industries, Inc.	25	<b>DRIVES, SILENT CHAIN.</b>	56	Gordon Co., Inc., Robert.	9
<b>BEATING ENGINES.</b>	23	Morse Chain Co.	56	<b>IRON AND STEEL PRODUCTS.</b>	—
Park Iron Works	23	<b>DRYER EXHAUSTS.</b>	45	Brown-Wales Co.	—
Engineering Co.	55	The Nash Engineering Co.	45	<b>KNIVES, ETC.</b>	9
De Beater & Hoist Co.	71	<b>DRYING SYSTEMS.</b>	—	Bolton & Sons, J. W.	9
Dill Machine Co.	71	Fairsworth Co.	—	Dowd Knife Works	—
Dills Machine Works, Inc.	51	Open Coil Heater & Purifier Co.	—	Machinery Co. of America	54
Downingtown Mfg. Co.	74	W. F. Pickles	—	<b>LUBRICANTS.</b>	—
Emerson Mfg. Co.	51	<b>DYES, ANILINE.</b>	—	Vacuum Oil Co.	—
Mills Machine Co.	71	Calco Chemical Co.	—	<b>MICROMETERS.</b>	—
Noble & Wood Machine Co.	71	Heller & Merz	7	E. J. Cady & Co.	43
Valley Iron Works Co.	27	Natural Aniline & Chemical Co.	—	Foreign Paper Mills, Inc.	21
<b>BELT LACING, STEEL.</b>	—	The White Tar Aniline Corporation.	61	<b>MILL COGS.</b>	76
Flexible Steel Lacing Co.	—	<b>DYE STUFFS.</b>	—	N. P. Bowsher & Co.	76
<b>BELTING.</b>	—	E. I. du Pont de Nemours & Co.	—	<b>MOTORS.</b>	11
Cincinnati Rubber Mfg. Co.	—	<b>ELECTRIC EQUIPMENT.</b>	—	B. F. Perkins & Son, Inc.	11
Goodyear Tire & Rubber Co.	—	General Electric Co.	—	<b>OILS AND GREASE.</b>	—
The Rosendale-Reddaway Co.	13	<b>ELECTRIC HOISTS.</b>	—	Vacuum Oil Co.	—
R. D. Skinner & Co., Inc.	4	Shepherd Electric Crane & Hoist Co.	—	<b>PACKING.</b>	8
<b>BLASTING POWDERS.</b>	41	<b>ENGINEERS.</b>	69	Jenkins Bros.	8
Hercules Powder Co.	41	Samuel M. Green Co.	69	<b>PAINTS &amp; VARNISHES.</b>	—
<b>BOILERS.</b>	69	J. O. Ross Engineering Corp.	—	Du Pont de Nemours Co., E. I.	—
Heime Boiler Co.	69	<b>ENVELOPE MACHINES.</b>	63	<b>PAPER BAG MACHINERY.</b>	—
<b>BRONZE ROLL JACKETS.</b>	49	Potdevin Machine Co.	63	Fischer Machine Co.	—
Sandusky Foundry & Machine Co.	49	F. L. Smith Machine Co.	—	Potdevin Machine Co.	63
<b>BUCKETS (Elevator).</b>	10	<b>FELTS AND JACKETS.</b>	—	<b>PAPER BAG MANUFACTURERS.</b>	61
Hendrick Mfg. Co.	10	Albany Felt Co.	—	Consolidated Paper Bag Co.	61
<b>CALENDER ROLLS.</b>	57	Appleton Woolen Mills.	8	Lawrence Bag Co.	69
Farrel Foundry & Machine Co.	57	F. Hredt & Co.	Front Cover	Schorsch & Co.	63
Lobdell Car Wheel Co.	5	Draper Bros. Co.	20	<b>PAPER BOX BOARDS.</b>	12
Norwood Engineering Co.	11	Pitchburg Duck Mills.	—	C. L. La Boiteaux Co.	12
Perkins & Son, Inc., B. F.	11	F. C. Huyck & Son.	11	<b>PAPER CUTTERS.</b>	57
Textile Finishing Machinery Co.	—	Knox Woolen Co.	3	Hamblet Machine Co.	57
<b>CARBON TOOLS.</b>	70	Lockport Felt Co.	51	McLauthlin & Co., G. T.	—
Thomas L. Dickinson	70				

*Paper Stock*

## NOW IS THE TIME TO BUY OUR RAW MATERIALS

Out of our forty different grades of paper stock you are assured a steady, reliable source for procuring raw materials in practically every branch of paper making. Having specialized for 35 years in this one field you can depend upon a clean, well-packed, uniform product throughout; fulfillment of delivery promises; and because of our output of 300 tons daily, big tonnage at all times. Write us your wants.

Mendelson Bros. Paper Stock Co.,

General Offices: 910 So. Michigan Ave., Chicago, Ill.  
Long Distance Phones, Harrison 244 and 245

# Buchanan & Bolt Wire Company

ESTABLISHED 1878 AT HOLYOKE, MASS.

Makers of Highest Grade Fourdrinier Wires, Dandy Rolls, Cylinder Covers, Brass Wire Cloth of all Meshes for Paper, Pulp and Coating Mills—Quality Guaranteed

We make a specialty of Fine Wires for Magazine and Book Papers

# CLASSIFIED INDEX TO ADVERTISEMENTS

PAPER DEALERS.		Page	PAPER STOCK (Cont'd.).		Page	SPICING TISSUE.		Page
M. M. Elish & Co.	35		Penn Paper & Stock Co.	70		Sergeant Co. E. M.	56	
R. F. Hammond.	Front Cover		Salmon Bros & Co.	61		STEAM SPECIALTIES.		
Midwest Paper Co.	70		Train-Smith Co.	Front Cover		Crane Co.	56	
PAPER EXPORTERS.			PAPER TESTERS.			Open Coil Heater & Purifier Co.	—	
A. M. Capen's Sons, Inc.	76		Ashcroft Mfg. Co.	55		STITCHING MACHINERY.		
Hudson Trading Co.	2		Foreign Paper Mills, Inc.	21		Saranac Machine Co.	—	
Interstate Pulp & Paper Co.	45		B. F. Perkins & Son, Inc.	11		SULPHITE PULP ("Kraft" Soda).		
Parsons Trading Co.	Front Cover		PAPER TUBE MACHINERY.			Dryden Pulp & Paper Co., Ltd.	35	
Parsons & Whittemore.	3		Dietz Machine Works.	10		SULPHITE BLEACHED AND UNBLEACHED.		
W. M. Pringle Co., Inc.	53		Grisinger Machine Works.	70		J. Andersen & Co.	6 and 25	
Storm & Bull.	—		PAPER WAXING MACHINERY.			The Borregaard Co., Inc.	—	
PAPER MANUFACTURERS.			Potdevin Machine Co.	63		Brown Company.	5	
American Coating Mills.	53		PERFORATING MACHINES.			Canadian Robert Dollar Co.	33	
Bayless Mfg. Co.	6		Dietz Machine Works.	10		Craig-Becker Co., Inc.	35	
Brown Company.	5		PERFORATED METAL.			Dryden Pulp & Paper Co.	35	
Collins Mfg. Co.	12		Harrington & Son's Perforating Co.	63		Parsons Pulp & Lumber Co.	61	
Diamond State Fibre Co.	Front Cover		Hendrick Mfg. Co.	10		Price & Pierce, Ltd.	Front Cover	
Eaton-Dikeman Co.	67		Charles Mundi & Sons.	51		Pulp and Paper Trading Co.	6	
Fort Howard Paper Co.	3		Manhattan Perforated Metal Co.	—		SULPHUR.		
Franklin Paper Co.	—		PLUGS (Wood).			Texas Gulf Sulphur Co.	4	
Hammermill Paper Co.	49		O. L. Bartlett.	—		Union Sulphur Co.	55	
Howard Paper Co.	63		PULP PROCESS.			TANKS.		
Missisquoi Pulp & Paper Co.	47		Castle, Gonthel & Overton.	8		W. F. Caldwell Co.	9	
Mountain Mill Paper Co.	7		PULP STONES.			New England Tank & Tower Co.	70	
Niagara Paper Company.	13		International Pulp Stone Co.	Front Cover		Stearns Lumber Co.	61	
New York and Maryland Pulp & Paper Co.	—		Lombard & Co.	63		TAPE MOISTENERS.		
Poland Paper Co.	56		PULPWOOD.			Liberty Paper Co.	53	
Sherman Paper Co.	73		The Northern Wood Supply Co.	67		TIMBER ESTIMATES.		
Stratford Paper Co.	53		PUMPS.			R. R. Bradley.	68	
Wausau Sulphate Fibre Co.	—		Frederick Iron & Steel Co.	2		James W. Sewall.	68	
PAPER AND PULP MACHINERY.			Haydon Pump & Blower Co.	—		TRANSMISSION MACHINERY.		
Bagley & Sewall Co.	74		PUMPS (Vacuum).			H. W. Caldwell & Sons Co.	—	
Baker Mfg. Corp.	23		The Nash Engineering Company.	45		Reeves Pulley Co.	—	
Beloit Iron Works.	29		RAG CUTTERS.			TURBINES.		
Bird Machine Co.	—		B. F. Perkins & Son, Inc.	11		S. Morgan Smith Co.	8	
Black-Clawson Co.	11		Taylor-Stiles & Co.	—		TWINES.		
Clark-Alken Co.	65		REAM CUTTERS.			American Manufacturing Co.	42	
Frank H. Davis.	74		Geo. T. McLaughlin Co.	—		VALVES.		
Downingtown Mfg. Co.	66		RECORDING INSTRUMENTS.			Crane Co.	56	
Glens Falls Machine Works.	33		Bristol Company.	—		Jenkins Bros.	8	
Improved Paper Machinery Co.	71		Frabiro Co., Inc.	54		VENTILATING FANS.		
M. W. Kellogg Co.	49		ROBIN SIZE.			B. F. Perkins & Sons, Inc.	11	
Mills Machine Co.	10		Arabul Mfg. Co.	56		VEGETABLE PARCHMENT PAPERS.		
Sandusky Foundry & Machinery Co.	67		ROTARY BLEACHING BOILERS.			Kalamazoo Vegetable Parchment Co.	45	
Sandy Hill Iron & Brass Co.	74		Brews Boiler Works Co.	—		WAREHOUSE SERVICE.		
Seabrook Bros. Machine Co.	27		RUBBER ROLLS.			Brown-Wales Co.	—	
Smith & Winchester Mfg. Co.	2		American Wringer Co.	4		WAXED PAPERS.		
Valley Iron Works Co.	70		SCALES (Paper).			Dragon Paper Mfg. Co.	35	
Waterville Iron Works.	12		Fred Baker.	47		WOOD FLOUR.		
PAPER MILL AGENTS.			E. J. Cady & Co.	43		Union Wood Flour Co.	55	
Dillon & Barnes.	2		Foreign Paper Mills, Inc.	21		WOOD PULP IMPORTERS.		
Hill Company, Berton C.	3		SCREENS.			American Wood Pulp Corp.	6	
McIver, Dana T.	69		Central Mfg. Co.	—		J. Andersen & Co.	6 and 25	
Melby, E. C.	—		Wm. A. Hardy & Sons Co.	49		Ira L. Beebe & Co.	69	
R. L. Stevens, Jr.	66		Union Screen Plate Co.	73		The Borregaard Co., Inc.	—	
PAPER AND PULP MILL BROKERS.			SKYLIGHTS.			M. Gottesman & Co.	31	
Gibbs Brewer Co.	61		E. Van Norden & Co.	56		Hammond, R. F.	Front Cover	
PAPER STOCK.			SLASHERS.			E. J. Keller Co.	12	
Atterbury Bros.	56		Ryther & Pringle Co.	—		Lagerloef Trading Co.	14 and Front Cover	
Castle, Gonthel & Overton.	76		SLITTERS AND REWINDERS.			A. J. Pagel & Co., Inc.	19	
Gumbinsky Brothers.	47		C. B. Henningsen & Sons.	70		J. F. Patton & Co., Inc.	54	
Hicks, Daniel M.	55		Camern Machine Works.	10		Scandinavian American Trading Co.	12	
Francis Hughes Co.	73		Dietz Machine Works.	37 and 70				
Mendelson Bros. Paper Stock Co.	—		Samuel M. Langston Co.	—				

## STRATFORD PAPER CO.

160 Cornelison Ave.  
Jersey City, N. J.

High Grade Fourdrinier Tissues in Stock for Immediate Delivery

Fitchburg, Mass.,  
U. S. A.

## UNION SCREEN PLATE COMPANY

Lennoxville, P. Q.  
Canada

UNION BRONZE SCREEN PLATES ROLLED BRASS  
(Best phosphorized cast metal) (Union Quality)

Old plates RECLOSED and RE CUT to accurate gauge.

UNION BRONZE SCREWS for Screen Plates

UNION BRONZE SUCTION BOX PLATES

Immediate Delivery of the Largest Orders. Satisfaction Guaranteed.

THE UNION-WITHAM SCREEN PLATE VAT AND FASTENERS

THE ORIGINAL  
Over One Thousand in Successful Operation

THE BEST  
Recommended by Screen Makers



# BAKER MANUFACTURING CORPORATION

Formerly Baker & Shevlin Co.

Manufacturers of

A general line of paper and pulp making machinery including:

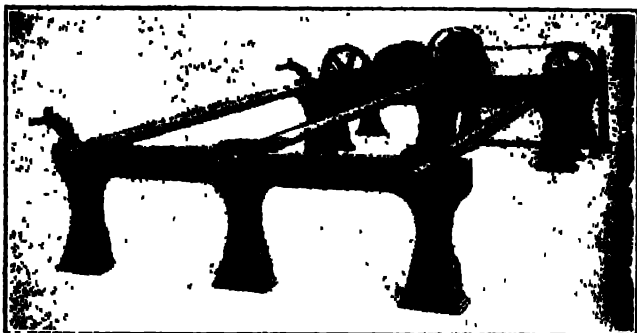
Automatic Magazine Grinders (owners of all U. S. patents)	Kneaders
Bronze and White Metal Valves for Sulphite Mills	Monarch Diaphragm Screen
Bronze and White Metal Pipe and Fittings for Sulphite Mills	Paper Making Machines—Cylinder and Fourdrinier
Centrifugal Screens—Horizontal and Vertical	Paper Machine Screens—Horizontal Rotary
Centrifugal Pumps	Pulp Refiners
C. Bache Wiig Barking Drum	Ramsey Patent Grinder Valves
Cylinder Moulds	Sliver Screens
Decker Machines or Pulp Thickeners	Wet Machines
Feeney Automatic Stock Regulator	Winder Shafts
	Worm Washers
	Worm Knotters

Baker Manufacturing Corporation

Saratoga Springs, N. Y.

## DOWNINGTOWN MANUFACTURING CO.

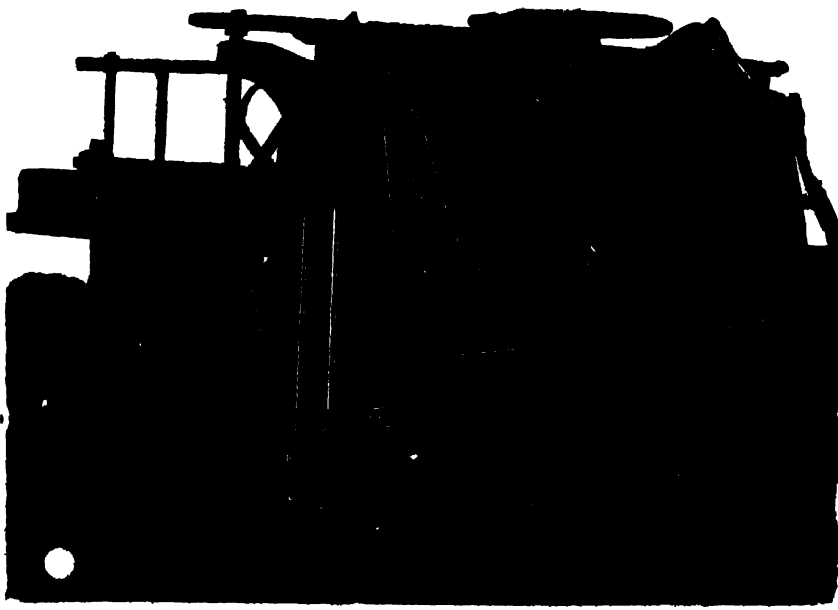
EAST DOWNINGTOWN, PA., U. S. A.



3 Shaft Compensating Winder

*We build all kinds of  
Paper Mill Equipment*

WRITE US FOR PRICES



### The Undercut Trimmer

The Paper Mill Cutter, combining the highest degree of accuracy, speed and simplicity for the most exact trimming.

The clamping power of the Undercut is not equalled by any other cutter, and assures absolute accuracy in trimming. The safety in operating an Undercut is a very important fact to be considered, as well as simplicity of design and construction carried out in the best manner and workmanship possible.

The speed of the Undercut is such that more cuts can be utilized in the working of our machine than in the high-speed cutters, which not only consume power, but wear out rapidly.

Our Power Back Gauge Drive enables the operator to handle material quickly, easily, and more in quantity than can be secured in the use of other machines.

For further and full information, call upon

**The Smith & Winchester Mfg. Co.**

Builders of High Grade Paper Mill Machinery and Paper Bag Machinery  
South Witham, Conk.

# HEINE LARGE UNIT BOILERS

Longitudinal Drum Water Tube Boilers.

Cross Drum Water Tube Boilers.

Boiler Casings, Steel Stacks.

All Heine Boilers conform to A.S.M.E. Boiler Code.

Catalogs Gladly Sent on Request

**HEINE BOILER COMPANY**

ST. LOUIS

U. S. A.



## Offices

London, England  
Buenos Aires, Argentina  
Havana, Cuba  
Santiago, Chile  
Cape Town, South Africa  
Johannesburg, South Africa



## Offices

Bombay, India  
Sydney, Australia  
Melbourne, Australia  
Rio de Janeiro, Brazil  
Shanghai, China  
San Francisco, Cal.

Exporters and Importers of

**PAPER and PULP**

**PARSONS & WHITTEMORE, Inc.**

299 Broadway

New York

# KNOX WOOLEN CO.

MANUFACTURERS OF

# "EXCELSIOR"

Seamless Felts for  
fast running

FELTS AND JACKETS

Satin style Felts  
for fine finish

1863

FOR EVERY GRADE OF PAPER

CAMDEN, MAINE

1921

ALVAH MILLER, Pres. TOM T. WALLER, Vice-Pres.  
NATH'L L. MILLER, Secy-Treas.

## Craig-Becker Company

INC.

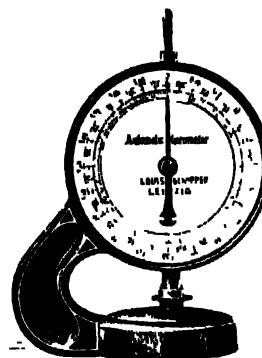
Domestic and Foreign  
Ground Wood and  
Sulphite

52 VANDERBILT AVE.  
NEW YORK CITY

## SCHOPPER STANDARD PAPER TESTERS ARE THE BEST

11" high

8" wide



THE ORIGINAL MICROMETER

They last a life time.

Why buy imitations?

Strength and Stretch Tester.	Pocket Micrometers
Folding Testers	Desk Micrometers
Hygrometers	Pocket Scales
Testing Acids	Desk Scales

U. S. A.

SOLE AGENTS

CANADA

**FOREIGN PAPER MILLS, INC.**

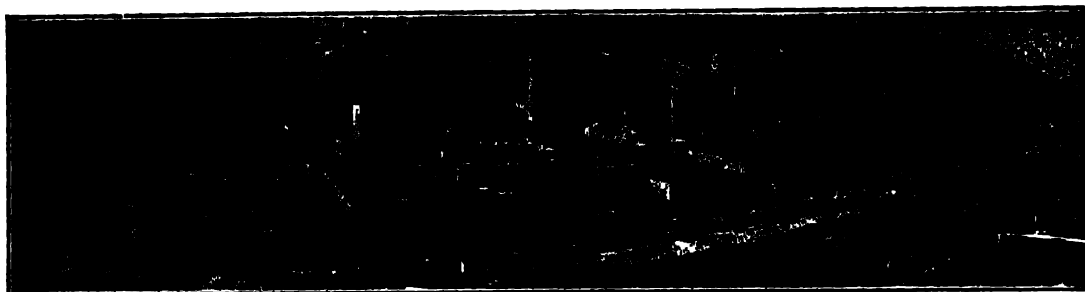
261 BROADWAY

NEW YORK



## Bayless Manufacturing Corporation

SALES OFFICE: 527 FIFTH AVENUE, NEW YORK.  
PULP AND PAPER MILLS AT AUSTIN, PA.



HIGHEST  
QUALITY  
SULPHITE  
WRAPPING  
PAPERS

L. H. BOGART,  
Secretary

H. BARGER,  
Treasurer

Manufacturers' Exporters

of

# PAPER

to the Wholesale Jobbing Trade  
Exclusively

**W. M. Pringle Co., Inc.**  
Howard and Crosby Sts., New York, N. Y.

Cable Code—Pringle Co., New York. All Codes

## J. ANDERSEN & CO.

FREDERICK BERTUCH, SPECIAL PARTNER  
21 East 40th Street, New York City

### Importers of Chemical Pulps

BLEACHED AND UNBLEACHED

Agents for Kellner Partington Paper Pulp Co., Ltd.  
Sarpsborg, Norway; Forshaga, and Edsalla, Sweden;  
Bergvik and Ala Nya Aktiebolag, Soderhamn, Sweden

Scandinavian Export Agents

TEXAS GULF SULPHUR CO., TEXAS CITY, TEXAS

## THE WATERBURY FELT CO.

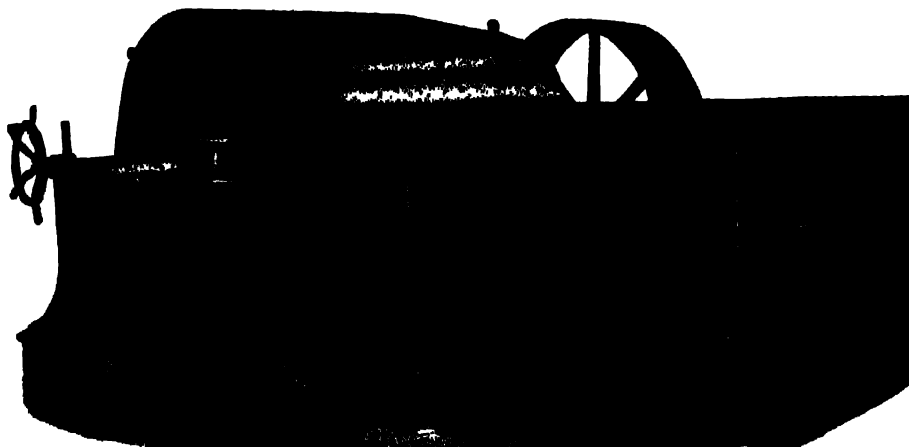


### FELTS and JACKETS

For Every Grade of Paper and Pulp

Correspondence and Orders  
Solicited

Manufactured at  
**SKANEATELES FALLS**  
New York



## Dilts Machine Works, Inc.

FULTON, N. Y., U. S. A.

Manufacturers of

**BEATING ENGINES**  
**WASHING ENGINES**  
**BREAKING, BLEACHING**  
**and MIXING ENGINES**  
**Fly Bars—Bed Plates**  
**Machine Knives**

## F. L. Smithe Machine Co. Inc.

### MANUFACTURERS OF ENVELOPE MACHINERY

for making any style envelope, regular or special. Printed, stamp embossed and tissue lined envelopes.

Also die presses, tension machines, and metal clasp machines, and all other machinery used in manufacturing envelopes.

Designing, pattern making and machine work.

150 Eleventh Avenue, New York City, New York,  
U. S. A.

## Missisquoi Pulp and Paper Company

SHELDON SPRINGS VERMONT

White and Tinted Bristols—White  
Blanks—Index Bristol and Special-  
ties in Card Boards.

## BARS—SHEETS—STRUCTURALS

Channels

Beams

Angles

Tees

Plates

Maximum  
lengths  
60 ft.

Turn-  
buckles

Bolts

Nuts

Washers

Rivets



All material cut to length

Immediate Deliveries

## BROWN-WALES COMPANY

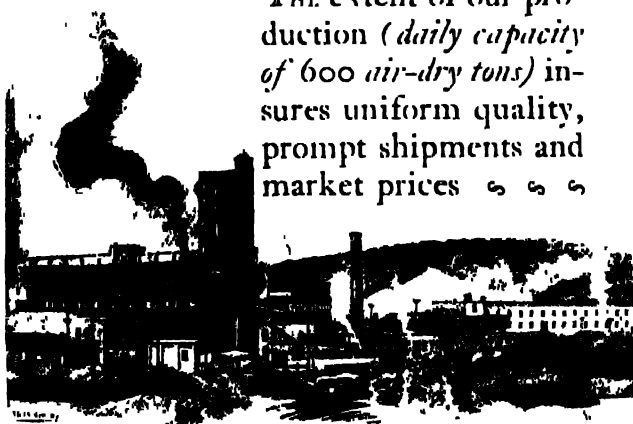
BOSTON 9

Branch Offices:  
261 Broadway, N. Y. City  
339 Main St., Worcester, Mass.

## BLEACHED

### *Sulphite Fibre*

THE extent of our pro-  
duction (*daily capacity*  
*of 600 air-dry tons*) in-  
sures uniform quality,  
prompt shipments and  
market prices



## BROWN COMPANY

*founded 1852*

PORTLAND MAINE

*Mills at Berlin, New Hampshire*

NEW YORK CITY  
Woolworth Bldg.

CHICAGO  
110 So. Dearborn St.

# APPLETON FELTS

Quality Paper  
Quantity Production

is another way of saying

APPLETON  
Felts and Jackets

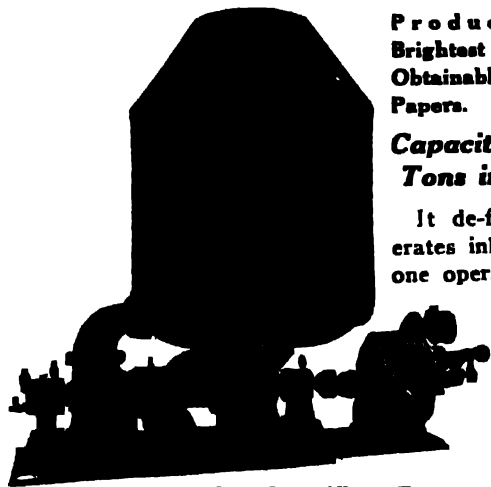
APPLETON WOOLEN  
MILLS

APPLETON, WIS.

# WINESTOCK

DE-FIBERING AND DE-INKING PROCESS

PATENTED



Height of Machine Over All, 12 Feet

Produces Strongest, Brightest and Best Pulp Obtainable from Waste Papers.

**Capacity—12 to 15 Tons in 24 Hours**

It de-fibers and liberates ink and color in one operation. It separates ink and color from fibers, instead of rubbing, grinding or kneading them in.

**CASTLE, GOTTHEIL & OVERTON**

SOLE SELLING AGENTS IN THE UNITED STATES

200 Fifth Ave. Building

New York, N. Y.

E. D. Jones & Sons Co., Pittsfield, Mass.,

Builders in the United States

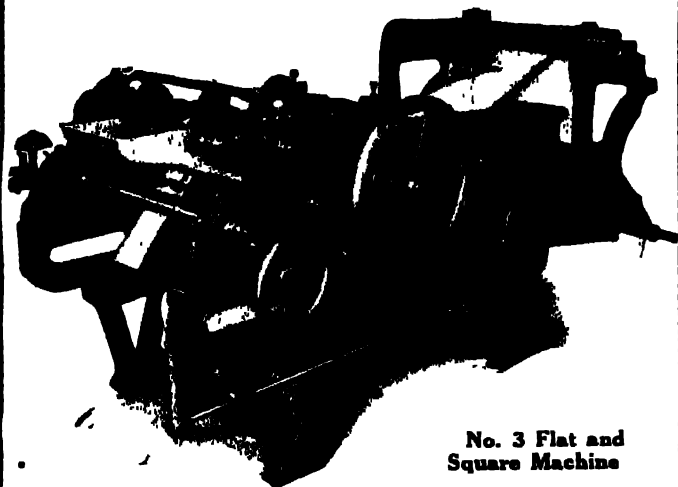
Waterous Engine Works Co., Ltd., Builders and Selling

Agents for Canada, Brantford, Canada.

## Paper Bag Machines

To make all sizes of Flat and Square Bags. Also sacks in 1/16, 1/8 and 1/4 bbl. sizes. Very fast and compact. The bag is made complete from a roll of paper.

DESCRIPTIVE FOLDER AND SAMPLE BAGS ON REQUEST

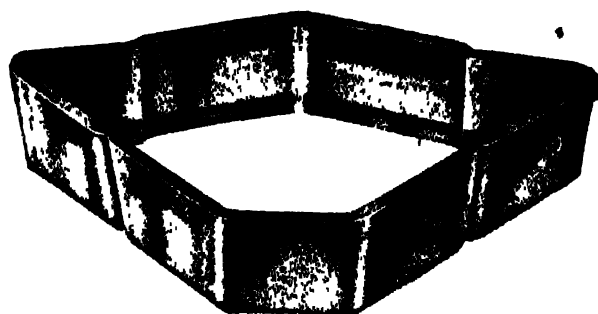


No. 3 Flat and Square Machine

**FISCHER MACHINE COMPANY**

310-316 North Eleventh Street

PHILADELPHIA, PA., U. S. A.



## Envelope Cutting Dies

THE kind that cut clean and stay sharp. Independent Dies are made by specialists of highest skill, from carefully selected steel, and we guarantee every one of them to be free from flaws or defects of any kind. They are accurate, efficient, durable. They are steadily growing in popularity, as is proven by the fact that our factory is running full time with the largest force in our history.

Besides envelope dies, we make label dies, circular dies in all sizes, elliptical, oval, square and irregular shapes. We take especial pride in producing odd and intricate designs.

Ask us to quote prices on unusual shaped dies. Write for descriptive folder of stock dies, which we always have on hand, ready for immediate shipment.

**The INDEPENDENT DIE CO., Inc.**

2641 LaSalle Street

ST. LOUIS, MO.

# THE NEWPORT COLORS

*for* **PAPER**

Newport Acid Bordeaux B Conc

AND

Newport Paper Red 2 B

TWO PRODUCTS OF GOOD COLORING  
POWER FOR BOTH LIGHTER AND  
DEEP SHADES



**NEWPORT CHEMICAL WORKS, Inc.**  
**PASSAIC, NEW JERSEY**

Branch Sales Offices—Boston, Philadelphia, Greensboro, N. C., Chicago, Providence

# BOOK PULP

"SOMETHING NEW IN PAPER-MAKING"

Our clean, bleached white Book Pulp possesses all the paper-making elements and advantages of bleached sulphite and soda pulp, at a cost slightly higher than that of ground wood pulp. It enables the practical paper-maker to cut costs and create new grades.

**New York and Maryland Pulp and Paper Co.**

522 Fifth Avenue

New York

**MILL—METUCHEN, N. J.**

# COLORS

## Calender Beater Coating



*For all grades of stock*

PROMPT LABORATORY SERVICE

**SANDOZ CHEMICAL WORKS**

INCORPORATED

238-240 Water St., New York

OUR SOURCE OF SUPPLY IS  
**SANDOZ CHEMICAL WORKS**  
Basle, Switzerland

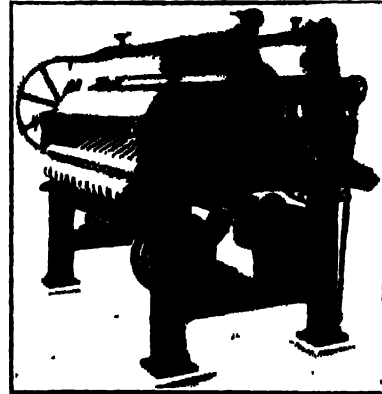
# THE CLARK-AIKEN CO.

Successors to

H. C. Clark & Son Machine Co.

**PAPER MILL MACHINERY**

LEE, MASS.



Revolving Paper Cutters—Rag Cutters—Cylinder Paper Machines—Washing and Beating Engines—Chilled Iron and Paper Calendars—Fan and Stuff Pumps—Engine Roll Bars and Bed Plates—

Cylinder Molds—Marshall Drives—Slitters and Rewinders—Reels—Dryers with Improved Packing Boxes—Wet Machines—Gun Metal and Rubber Rolls—Rolls Reground.



## Standardize

your requirements for  
Grease-proof paper on  
tested quality.

The well-known brands Purity and Berkshire will meet all requirements a high grade Grease-proof paper is subject to.

Many of the largest paper distributors of the country have standardized on Mountain Mill products.



Why don't you?

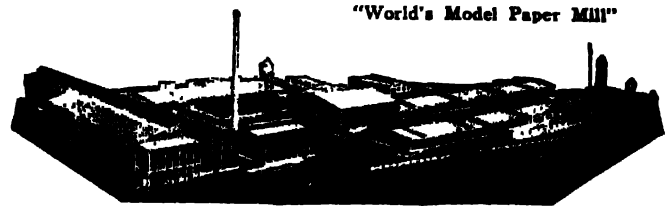
*We will be glad to mail you a full line of samples.*



**Mountain Mill Paper Co.**

LEE, MASSACHUSETTS

Chicago Sales Office: 1148 First National Bank Building  
New York Office: 225 Fifth Avenue



"World's Model Paper Mill"

**Genuine Vegetable Parchment**

**Pure Waxed Papers**

**K V P Bond—White and 6 Colors**

**KVP Manifold-Sub. 8 and 10**

*Write for Samples*



## BOLTON QUALITY

If you have ever used *any* of the Bolton products, Fly Bars, Bed Plates, Jordan Fillings, or Knives of any kind, you found them *HIGH GRADE* in quality and finish and economical in cost.

You can order any of the Bolton Quality line and know that you will find same equally *High Grade*, equally *well finished*, and equally *economical*.

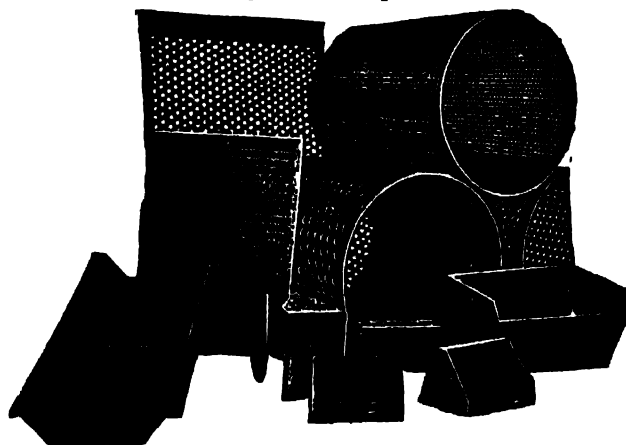
**JOHN W. BOLTON & SONS, Inc.**  
LAWRENCE, MASS.

*High Grade Fly Bars, Bed Plates, Jordan Fillings and Knives*

## PERFORATED METAL SCREENS

IN STEEL AND ALLOYED METALS

For Pulp and Paper Mills



Elevator Buckets, Conveyor Flights  
and Troughs, General Sheet and  
Light Structural Work

**HENDRICK MANUFACTURING CO.**

75 Dundaff Street, Carbondale, Pa.

New York Office, 30 Church St.

Pittsburgh Office, 915-916 Union Bank Building

“Papers made in the Adirondacks”

## 1919 PAPERS

### EQUIPMENT—

92" trim Cylinder machine for Heavy Papers .010 to .025    56" trim Fourdrinier machine for Medium Weight Papers  
65" trim Harper machine for Light Weight Papers    40" Plater for "special surfacing"  
40" Roll Embossing machine

We are equipped to make the following specialties:

Drawing  
Railroad Writing  
Bogus Bristol  
Photo Mounts (Solid and Filled)  
Cover Paper  
Kraft  
Anti Tarnish  
Macaroni  
News

Chocolate Layer Board  
Cheviot Paper  
Coating  
Ticket Bristol  
Album Paper  
Black Papers  
Filled Calendar Back  
Solid Calendar Back

Colored Poster  
Colored Sulphite  
Box Cover  
Plated and Embossed Papers  
Match Box Paper  
Special Standard Cover (antique  
finish only)  
Pattern Paper  
Manila

White and Colored Papers for Special Requirements

We also will stock two cover lines—one pattern paper line—one box cover line.

# NUERA PAPER CO., Inc.

General Offices and Mill: Hadley, New York

W. J. Blackley  
General Sales Manager

**Quality  
Without  
An  
Apology!**

And it's backed up by  
service which satisfies.  
That's why you can al-  
ways depend on

**La Boiteaux**

*to supply you  
with the best*

**Box Boards  
and Paper Board  
Specialties**

in good time and at interest-  
ing prices

A word from you will bring  
complete details as to how we  
can be of genuine service.

**The C. L. La Boiteaux Co.**

Cincinnati  
Cleveland

Chicago  
New York

**INTERSTATE  
Pulp & Paper Co.**

(INCORPORATED)

1050 GRAND CENTRAL TERMINAL,  
NEW YORK, N. Y.

**P U L P  
AND  
P A P E R**

*Domestic and Export*

Newsprint    Book    Writing  
Bond        Wrapping  
Ledger

**“ALBANY”**

**FELTS and JACKETS for Paper and Pulp Mills**

**A**LBANY FELTS are adapted for every type of Paper and Pulp Machine, and for every kind of stock. Every one is made of Pure Wool of the very best quality.

☐ Twenty-five years' experience in making Paper Makers Felts and Jackets has shown us how to make them as best suited to the needs of various kinds of machines and stock.


☐ Every possible effort is made to give our customers the best satisfaction and to weave into our Felts and Jackets the longest possible life

ALBANY,

**ALBANY FELT COMPANY**

NEW YORK





## OUR SPECIALTY

### *Genuine Crepe Toilets*

Other grades, are, however, produced by us, as well as Genuine Crepe Napkins, flat and folded, also Paper Towels. The merit of Fort Howard Products has become so well known to the trade, that they are pleased to call them **QUALITY PRODUCTS**.

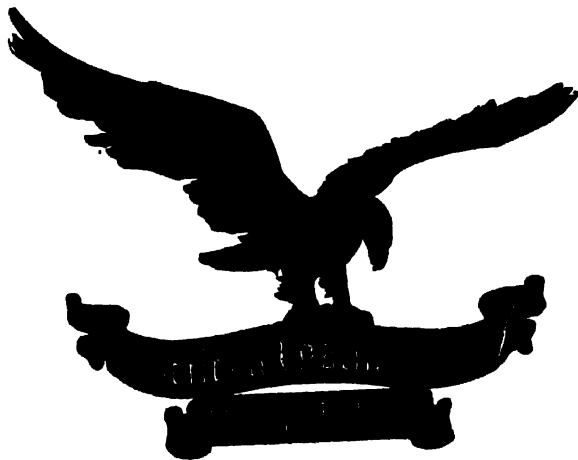
**Fort Howard Paper Co.**  
Green Bay, Wis.



## SIMPLICITY

The principle of the Mullen Paper Tester affords no chance for variation through friction or lost motion of parts. There are no complications of levers and springs. The Mullen Bursting Strength Test is simplicity itself because of its direct relation to actual conditions. Write for full particulars to Dept. P 10.

**B. F. PERKINS & SON, Inc., Holyoke, Mass.**  
PARSONS TRADING CO., Exclusive Representatives for Europe,  
17 Battery Place, New York City. 28 Fleet St., London, E. C. Eng.



Manufacturers of

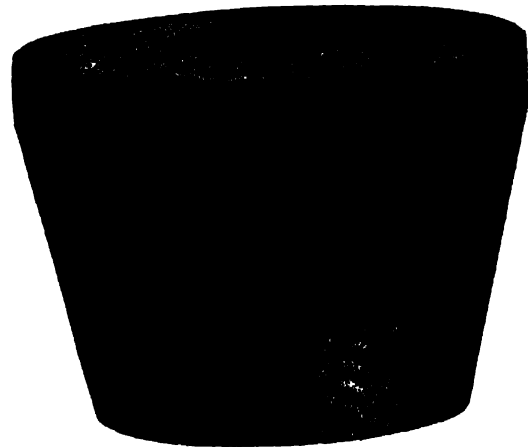
**Coated Cardboard, Boxboard and Lithograph Paper, including Lithograph Blanks, Postal Card Stock, Tough Check, Railroad, Thick China, Transluents and Menu Board.**

Our Boards and Papers lie flat, hang straight, and register because they are made right.

Orders for regular or special sizes are given prompt attention. Quality guaranteed.

**TRY US AND SEE**  
**EASTERN SALES OFFICE, 501 Fifth Avenue, NEW YORK CITY**

## Wood Plugs



For paper rolls, made to pattern under shop names in four sizes as follows: **CARD, 3"**; **MANILLA, 2 1/4"**; **NEWS, 2 1/2"**; **DRUG, 2 3/4"**; 1 3/4" in length, having 1" hole, and tumble polished when shipped. You should, if possible, adjust your needs to these stock sizes, with prospect of prompt shipping in carlots or less, thereby avoiding serious delays in waiting for something special. Samples cheerfully furnished.

**O. L. BARTLETT**

**MOUND CITY, ILL.** Eastern Office:  
855 West End Ave., New York, N.Y.

JOHN ASPEGREN,  
President

Telephones: 8311  
8312 Murray Hill  
8313

NILS R. JOHANESON,  
Vice-Pres. & Gen. Mgr.

# SCANDINAVIAN AMERICAN TRADING COMPANY

50 EAST 42nd STREET NEW YORK CITY

## WOOD PULP

Among other brands we sell the following Pulp as Agents:

Uddeholm Bleached, Bleachable and Strong Unbleached (Kraft) Sulphates

Annual Production 20,000 dry tons

Iggesund Easybleaching and Strong Unbleached Sulphites

Annual Production 12,000 dry tons

Tonnage available for prompt and future delivery—Wire for prices

4



WE ARE SAFE IN OUR PROPOSITION

*YOU'LL MAKE NO MISTAKE IN ACCEPTING IT*

## PICKLES DRYING REGULATOR

will do everything we claim for it and more. The test costs you nothing until you are satisfied. Many mills tried one and now have every machine equipped. Write for list of users and other information.

W. F. PICKLES, Buckland, Conn.

We offer a full line of

# COLORS

and furnish precise directions on application for

## Beater Dyeing, Staining and Coating

Half a century's experience enables us to furnish goods answering requirements  
and to give reliable service

## THE HELLER & MERZ CO.

BOSTON

CHICAGO

NEW YORK

PHILADELPHIA

SPRINGFIELD, MASS.

# TEXAS GULF SULPHUR

**99½ Per Cent. Pure**

Produced from one  
of the largest known  
deposits in the world.

## Texas Gulf Sulphur Company

*General Offices*

41 East 42nd Street, New York, N. Y.

\*\*\*\*\*  
*Sulphur Deposit and Plant, Matagorda  
County, Texas*

# COLLINS MANUFACTURING COMPANY

SAMUEL R. WHITING, Pres. and Treas.

**Manufacturers of**

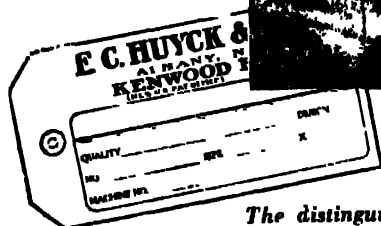
**LOFT DRIED PAPERS  
LEDGERS  
BONDS  
WRITING PAPERS**

**Mill: North Wilbraham, Mass.**

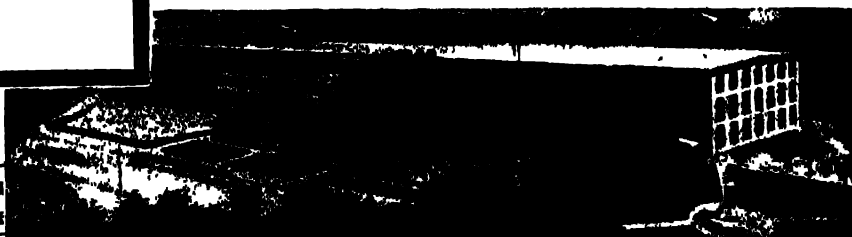
**Main Office:  
208 Race Street  
Holyoke, Mass.**

## Kenwood Felts, Kenwood Seamless Felts and Kenwood Tan Jackets

The economy of Kenwood  
Felts is reflected in the bal-  
ance sheets of both produc-  
tion and costs.



*The distinguishing mark  
of Kenwood Felts*



**F. C. HUYCK & SONS  
KENWOOD MILLS,  
ALBANY, N. Y.**



**SOLE AGENTS** in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH CELLULOSE ASSOCIATION, HELSINGFORS, FINLAND**  
 comprising all and every sulphite, Sulphate and Kraft pulp mill in Finland. Manufacturers of superior grades of Bleached and Unbleached Sulphites, Easy Bleaching Sulphates and Kraft Pulps.

ALSO



**SOLE AGENTS** in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH WOOD PULP UNION, HELSINGFORS, FINLAND**

a combination of the foremost Ground Wood Pulp and Board mills in Finland, makers of various kinds of boards and dry and wet Brown and White Mechanical Wood Pulp.

*Get the most for your money by getting next to our qualities and prices!*

**WOOD**  **PULP**

**LAGERLOEF TRADING COMPANY, Inc.**

**NEW YORK OFFICE:**

18 East 41st Street  
 Tel. Murray Hill 4346-7.

**CHICAGO OFFICE:**

1932 Conway Building  
 Tel. Main 1770-71.

**INQUIRIES SOLICITED**

MEMBER OF THE A. B. C.

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

**FIFTIETH YEAR**

PUBLISHED EVERY THURSDAY BY THE  
**LOCKWOOD TRADE JOURNAL COMPANY, INC.**

LESLIE R. PALMER, President

J. W. VAN GORDON, Vice-President

Telephone { 2380  
2381  
2382 } Vanderbilt

10 EAST 39TH ST., N. Y., U. S. A.

Cable Address Catchow, New York

Western Publication Office—431 S. Dearborn Street, Chicago  
New England Office—Room 46, 127 Federal Street, Boston

Washington Office—L. M. Lamm, 63 Home Life Bldg.  
Western New England News Office—Michael Connor, Holyoke  
London Office—Stonhill & Gillis, 58 Shoe Lane

*THE PAPER TRADE JOURNAL is the pioneer publication in its field, and has for many years been the recognized Organ of the Paper and Pulp Industry. Its circulation is greater than the combined circulations of all other publications in the field. Entered at New York Post Office as second-class mail matter.*

## Terms of Subscription

UNITED STATES AND MEXICO . . . . . Per year, \$4; 6 months, \$2; 3 months, \$1  
CANADA AND FOREIGN COUNTRIES IN POSTAL UNION . . . . . Per year, \$6  
SINGLE COPIES . . . . . 10 cents

## Other Publications of Lockwood Trade Journal Company, Inc.

AMERICAN STATIONER AND OFFICE OUTFITTER (Weekly) . . . . . Per year, \$2  
LOCKWOOD'S DIRECTORY OF THE PAPER  
STATIONERY AND ALLIED TRADES (Annual) . . . . . Per copy, \$7

Vol LXXIII. No. 15

NEW YORK AND CHICAGO

Thursday, October 13, 1921

## Table of Contents

### News of the Trade:

	PAGE
Cost Association Meets In Chicago	16
Cost Accounting Solves Mutual Problems	17
News of the Chicago Trade	18
Idle Time as a Manufacturing Loss	19
New Head of Superintendents, N. M. Brisbons	20
Michigan Cost Association Meets	20
MacSimBar Company Orders Power Equipment	20
French Paper Company Improvements	20
D. Graff & Sons at Grand Rapids	20
Operations of Riordon Plant to Resume	22
Antibi Power & Paper Co. Passes Dividend	22
Lumbering Operations in Canada Curtailed	22
Outlook for Canadian Paper Companies	24
New South African Paper Mills	24
Gain in Demand Continues in Philadelphia	26
Improvement in Chicago Continues	28
To Open Boston Sales Offices	28
Steady Improvement Shown in Toronto	30
Mr. Backus Pleases Kenora People	30
Wisconsin Paper Business Shows Improvement	32
Fox River Paper Company Issues Bonds	32
Claremont Paper Company Makes Exhibit	32
Certificate Bond Agents Meet at Holyoke	34
New York Trade Jottings	36
News of the Boston Trade	36
E. Butterworth & Co. Incorporate	36
Say I. P. Company Cannot Win Strike	39
Making Loading Land Work Is Appeal of Paper Makers	39
Situation Better in Sweden	39
Starting More Machines at Holyoke	39
G. A. Robertson Plant of Hinsdale Burned	39
Current Paper Trade Literature	42

	PAGE
Papermaking From Engineering View Point	42
Ultramarine Blue in Papermaking	42
Improved Process for Cooking Sulphate Pulp	42
Recent Incorporations	48
Paper Mill Improvements at Middletown	48
New Home of Sewell-Clapp-Envelopes	48
Outlook for the Japanese Paper Trade	50
Papyrus Appears in France	54
Imports of Paper and Paper Stock	56
Provincial Paper Mills Fine Showing	56

### Editorial:

Forest Products Laboratory	38
Pulpwood Prices Lower	38

### Technical and Practical:

Questions and Answers	40
-----------------------	----

### Special Articles:

Hemp Wood as a Papermaking Material	46
Sizing Paper With Bakelite	52

### Market Review:

New York Market Review	54
Market Quotations	55
Miscellaneous Markets	58

Want and For Sale Advertisements, Pages 60 and 61

## COST ASSOCIATION MEETS IN CHICAGO

**Sixth Semi-Annual Convention Held Thursday and Friday of Last Week Is One of the Most Successful in the History of the Association—Numerous Interesting and Helpful Papers Are Read by Representative Men of the Industry—Seth L. Bush Is Re-elected to Head the Association for the Ensuing Year—Conference Closes With Enjoyable Banquet.**

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, October 10, 1921—The Cost Association of the Paper Industry held its sixth semi-annual convention, Thursday and Friday, October 6 and 7, at the Drake Hotel here. The meeting came to a successful conclusion Friday night, after the banquet.

While there were speakers who attended during the two days' meetings, who in their addresses brought in other topics, the convention was given over almost entirely to the subject of cost systems which are being used in the industry, and how these could be perfected.

Starting with the first session, everyone attending was busy learning or teaching. The first session was one of business. The president delivered an address of welcome, the secretary made his semi-annual report, matters of general business of the organization were taken up and then followed the election of officers for the period from October, 1921, to October, 1922.

### Election of Officers

The new officers are as follows:

President, Seth L. Bush, manager of research, Crocker-McElwain Company Chemical Paper Manufacturing Company, Holyoke, Mass.

First vice-president, Dr. R. E. Rudfus, secretary, the American Writing Paper Company, Holyoke, Mass.

Second vice-president, Jacob Kunkelberger, president Kalamazoo Vegetable Parchment Paper Co., Kalamazoo, Mich.

Third vice president, C. A. Jasperson, secretary, Nekoosa-Edwards Company, Nekoosa, Wis.

Fourth vice president, John Schmidt, of Schmidt & Ault Paper Company, York, Pa.

Executive Committee—S. L. Bush, re-elected president, R. E. Rudfus, first vice-president, B. A. Franklin, vice-president of the Strathmore Paper Company, Jas. A. Reilly, American Writing Paper Company, and H. R. Weaver of the International Paper Company.

### Interesting Addresses

Following the election of officers at this session there were three very interesting addresses.

The next session was held in the French Room of the hotel. It was divided into three parts at two, three thirty and closing with a dinner in the evening followed by lectures. The local division officials also held a meeting the first day.

### Urges Standard Cost Systems

The second day started with a meeting at 9 A. M. when Thos. J. Burke, secretary-treasurer, read a letter from the Federal Trade Commission urging the adoption of Standard Cost Systems, detailing what can be done profitably along this line.

This was followed by an address by the president and the introduction of the "Budget Cost System." The association has just had published an outline under that title.

The balance of the morning was taken up with three interesting addresses and discussions. The first, by President Seth L. Bush, outlined carefully what can be done to standardize the cost system. The second, by Oliver Wellington, and the last of the morning session by C. A. Jasperson, completed the cycle in explaining what will be done to perfect the cost system in the future.

### Sectional Conferences

The afternoon session, October 7, started with an interim report

of committee on beater furnish, by Henry F. Miller of the American Writing Paper Company, and J. C. Sanburn, Strathmore Paper Company, chairman of the committee. The rest of the afternoon was taken up with sectional conferences. These consisted of Fine Paper, Coarse Paper, Converter and Paper Board Divisions.

Probably one of the most impressive facts about the convention was the number of good addresses delivered. At every meeting there were addresses of interest.

### Speakers at the Various Meetings

The speakers at the various meetings during the two-day period were:

E. C. Clark, American Writing Paper Company, representing the Technical Association of the Pulp and Paper Industry.

Jos. L. Peering, International Paper Company, representing the Salesmen's Association of the Paper Industry.

Ed. T. A. Coughlin, Monarch Paper Company (Coating Division) representing the American Pulp and Paper Mills Superintendents' Association.

H. A. Wingate, assistant secretary, C. H. Dexter & Sons, Inc., "Idle Time as a Manufacturing Loss."

Wm. R. Bassett, C. P. A., member of the American Institute of Accountants and also member of the Society of Industrial Engineers, "The Use of Cost Systems in Preventing Waste."

Seth L. Bush, president of the association, "A Budget Cost System for Paper Mills."

C. Oliver Wellington, C. P. A., member of Massachusetts Institute of Technology, "How Uniformity in Cost Accounting Helps Solve Mutual Problems."

C. A. Jasperson, secretary of the Nekoosa-Edwards Company, Port Edwards, Wis., "Depreciation as an Item of Cost," and "Time Keeping and Payroll Distribution."

James A. Reilly, American Writing Paper Company, "Some Methods Used for the Correct Distribution of Direct and Indirect Expenses to Grades or Lots." Delivered to the Fine Paper Sectional meeting.

A. W. Astley, Chemical Paper Manufacturing Company, "Half Stuff Accounting." Delivered to the Fine Paper Section meeting.

G. A. Watt, News Print Service Bureau, "A General Discussion of Methods for Obtaining Correct Costs in News Print Mills." Before the Coarse Paper meeting.

J. B. Hipwell, Dill & Collins Company, "Uniform Cost Accounting and Benefits to Be Derived by Interchange of Ideas." Before the Converters' meeting.

J. J. Han, Gardner & Harvey Company, "Standard Costs." Before the Paper Board division.

### Closing Banquet

The convention came to a close with a banquet, served in true Drake style, and a very interesting and appreciated address by Joseph A. Borden, of the American Writing Paper Company, speaker of the evening, who spoke on "Uniform Cost Accounting—How the U. T. A. Made It a Success."

### American Writing Heaviest Tax Payer

HOLYOKE, Mass., October 7, 1921—The American Writing Paper Company tops the list of corporations of this city as the heaviest tax payer. The taxes of the company amount to \$186,875.

## HOW UNIFORMITY IN COST ACCOUNTING HELPS SOLVE MUTUAL PROBLEMS\*

Paper making is no more free from problems than any other kind of manufacturing, and probably you feel that, at the present time, you have all the problems you need and more, too. Rather than add to your problems I will try to indicate how some of them can be solved.

The two outstanding features of the present situation are (1) mills running part time or only running some of their machines, and (2) the very low prices fixed for the products through competition. Can uniformity in cost accounting help this situation? I believe it can.

### Advantages to an Individual Mill

Many paper mills have for a number of years experienced the valuable results from a good cost system. The executives have had better control over the business, leaks and waste have been eliminated, the relative advantages of various products have been determined and the sales pushed on the more profitable lines. The owners of these mills will testify to the large returns they have had from their investment of time and money in installing and operating their cost systems.

Each of these mills has taken a long step in the right direction, yet the industry as a whole is not deriving the full benefit from work that they have done. How can we account for this condition? The answer is that there are cost systems and cost systems just as there are dogs and dogs. Although a fox terrier and a St. Bernard are both dogs, their characters and abilities are far from alike. So do cost systems installed in individual paper mills differ one from another. They may each be dignified with the name "cost system," but they vary widely in character and ability to produce results. Even if the results are good in each individual mill, they cannot be justly compared one to another.

### Cause of Unintelligent Competition

One result of this lack of uniformity in cost accounting is that it may lead to ignorant and ruinous competition. Although the old creed of "each man for himself and the devil take the hindmost" may be followed in some instances, there are few business men who are so stupid as to fight merely for the sake of fighting. If a fight is started it may be done through ignorance of the true conditions, or for a fancied gain in the long run.

Let us stop for a moment to consider the real situation of the paper industry in the long run. Is it not a fact that, even if a paper mill is temporarily driven into bankruptcy, it never actually goes out of competition? Is it not a fact that as soon as business picks up, this mill will be reorganized and will again be a competitor, frequently capitalized on a lower basis and able to compete sharper than ever? Is it not a fact that a policy of co-operation and education will be of advantage even to the strongest mill? Isn't the price situation too often governed by the statement, "If the X Company can sell for that figure, I can, my mill is just as efficient as theirs"? The mills may be equal in efficiency, to be sure but both may be losing money on every pound of paper sold at that price and yet not know it.

Some executives feel that prices have been unduly reduced by unintelligent competition on the part of those mills which are not making money, primarily because they are selling their products at less than they cost to manufacture. This feeling is partly due to different methods of figuring costs. One man may think of another as a price-cutter on some particular item, although the latter may actually be making a profit on other products. On the other hand, the supposed price-cutter may be slowly drifting

towards bankruptcy, hoping that an increased volume or better market conditions will save him from ultimate failure.

How much better each would understand the other if he knew that his costs were figured on the same basis. Would either man knowingly make a substantial volume of sales below cost, if he really knew from a dependable cost system that he was making a substantial loss?

### Tendency Towards Co-operation

Unintelligent competition is by no means universal. Especially in the last five years progressive business men have come more and more to look at their affairs in a broad way. They no longer refuse to exchange facts with their competitors. They have found that associations for mutual education are of considerable advantage, that the information thus interchanged is a benefit to the industry as well as to each participating member. It is so rare now as to be a cause for considerable surprise to hear a manufacturer state that he has spent a lot of money installing a cost system and he purposes to keep all its advantages to himself. The progressive men realize that they do not know everything which is to be known, and that from a free exchange of ideas and information they are likely to obtain fully as much benefit as they give to others.

There is the further idea, frankly expressed by many, that they have a purely selfish interest in educating their competitors. Is the reduction of unintelligent competition is a direct benefit to their own companies?

In connection with this general co-operative movement we have helped a number of national associations to develop uniform cost systems, and we have seen the direct financial benefit to all the members.

### What Uniformity Requires

But just what is meant by uniformity? Certainly not identical forms and identical results. In connection with the sheets of paper, books or cards on which are recorded all the details of purchases, storage, production and sale, there is properly room for a considerable amount of useful individuality, depending upon the many diversified local conditions. Similarly, costs vary between plants, as to administrative expenses, selling expenses and desired profits, so that no fixed rule can be laid down as to the exact part which cost plays in selling price.

Nevertheless, what can be uniform and should be so, are the principles that underlie the cost accounting practice. Agreement is easy and proper as to what items should be included in cost, and how they should be grouped.

This raises the question, however, of whether, as is sometimes alleged, it is more important to have all accounting principles exactly alike for the members of an association than it is to have them absolutely correct. The answer can be stated unequivocally. It is highly desirable that plans be made among the members of any association for methods founded on uniform principles, but it is more than desirable, it is indispensable, that the accounting plan be based on correct principles.

The reason for this is simply that right accounting knows no compromise. If uniform accounting is imperfectly devised, some members of the association will sooner or later find out what are the correct principles for their business and prefer these to uniformity. Moreover, the association will have difficulty in persuading new members and outsiders to co-operate unless it can convince them that its system is properly founded. Hence the first step for an association to take in seeking to secure uniformity is to define in common terms the underlying principles of good cost accounting.

\*Address delivered before the Cost Association of the Paper Industry, Chicago, October 7, 1921, by C. Oliver Wellington, C. P. A., member of American Institute of Accountants, member of Society of Industrial Engineers.

Some executives have hesitated to join in a co-operative plan, feeling that their plants are too small, and that they would become involved in endless red tape, with any uniform cost plan that would be suitable for the large mills.

The emphasis given above to uniform principles rather than uniform forms and records should remove this doubt from the mind of anyone. If a uniform system is a good one it must embody sound principles applicable to all mills, regardless of their varied conditions. Upon such fundamentals the larger mills will build such further refinements as seem desirable, but following clearly and consistently the main plan. Thus the small and the large mill will have the same outline of principles, the same general divisions of cost, the same units of cost, the same methods of analyzing and distributing overhead charges or burden—but the small mill will use a far less sub-divided classification of operating expenses, and will require fewer books and records than in the case of the large plant.

In the smaller mills of other associations, we have often found that a considerable amount of clerical work was being done without the desired results being obtained, and these mills have adopted the uniform plan with practically no increase in expenses of operation. This has been a great satisfaction of the managements, for they had not believed it possible or practical for them to get information that they really would have liked to have about their own business.

#### The Necessity for Uniformity

With the increase each year in the number of cost systems in operation in the paper industry, you may ask, "Why the necessity for having these uniform?" Are not the conditions improving year by year and month by month?" I answer, "Yes, every cost system worthy of the name is an improvement in the conditions in that particular mill, and indirectly of the industry as a whole."

Consider for a moment, however, the advantages of uniformity. The Cost Association has for some time now studied the problems of the industry, and discussed these from various angles, in conventions, papers, and local meetings. From all this work has developed a consensus of opinion as to what is good and what is bad cost accounting.

With this strong background the recommendations of the Cost Association in favor of uniformity should have weight with the whole paper industry. We have all seen the advantages to individual mills of having well-devised systems. All of these advantages will be retained with any uniform plan. No mill will give up any information of real value, but simply through uniformity it will be possible to make cost comparisons which will bring out worthwhile results that are often astonishing.

In the case of one association for which we worked out a uniform plan several years ago, we have since prepared comparisons of the principal operating costs for all the mills and made a report to all showing the high, the low and the average figures. As you may suppose, for many items the variations were very great. The members realized that all the figures were prepared on the same basis, and that the differences as shown represented real differences, and not merely varying methods of cost accounting. Hence the mills having the highest costs, or a cost above the average for any operations, were immediately put on their mettle to find ways and means for reducing high cost.

As might be expected, no one plant had in total much advantage over the others, but one plant had developed methods of reducing the cost of one operation, another plant had developed methods in a different operation, etc. Some plants that had previously considered themselves unusually efficient, and therefore able to undersell the average in the industry, were very much surprised to find that the actual facts were quite different. The result has been a raising of the level of efficiency in the industry, and a general stabilization of the business.

It is obvious that this desirable result could not have been obtained without uniformity in methods of cost accounting, even if each mill had possessed what would be called a good cost system, and had prepared costs of operations based on its own individual system. Even if the results had not been very different from those shown by the uniform system, the effect on the executives would have been quite different. There would always have been a lurking suspicion that differences in results were due not to real differences in efficiency of operations, but merely to the differences in methods of accounting. Even the ablest man is likely to at least consider an "ahbi" for any of his own short comings, and this possible difference in systems would be a very easy and plausible "ahbi." With uniform methods, however, the results are known to be comparable, and therefore they have an immensely greater weight.

It is hardly necessary to emphasize the fact that uniform cost accounting does not mean uniform selling prices. No two mills are exactly alike, and there is no doubt that one mill will be better equipped to produce economically a particular product than another, or perhaps than any other in the industry. Similarly a second mill will be best fitted to produce a different product. With uniform cost accounting, however, the cost figures will tell the real differences, and there will be no such large variances as now occur in cost figures and selling prices based on two cost systems with entirely different fundamentals.

#### Speaking a Common Language

We might liken uniformity in cost accounting to uniformity in language. It is true that an Englishman and a Frenchman and an Italian can, to some extent understand one another, but how much more effectively can they do business together if they all speak the same language. If it is to be decided that English is to be the official language of the paper industry, is it not well now, without delay, to lay down rules of English grammar, the principles that we will follow in our conversation and reasoning in regard to cost? Will we not then be closer together in our thoughts and actions based on this common language?

So that all may know and understand this common language of cost accounting, it will undoubtedly be necessary to have some teachers. These teachers will co-operate with those who develop the rules, so that all may be sure that what is taught is English and not some foreign language, or even a hyphenated brand of English.

The movement towards uniformity is progress in the right direction. Much has already been accomplished by this association working together we can all do even more to help solve the mutual problems of the industry.

#### News of the Chicago Trade

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, October 10, 1921.—(C) H. Runyon, identified here with Bradner Smith & Co., spoke before members of the Co-operative Club, at the Hotel Morrison, using "Paper" as his subject, last week. The club is made up of members, each one representing a different industry. They have adopted a program of studying the other members' business. Paper was taken up last week.

The first unit of the Waterway Paper Products Company, which is building Chicago's first paper mill, has had steam shovels on the ground and the foundation is now being put in. The machinery and equipment for the first unit mill has already been purchased.

The Paper Service Company, 439 South Jefferson street, announced last week the appointment of R. Swakow as general manager of that company. Mr. Swakow has had many years' sales experience in the paper line and has a large number of friends in the trade. His success in his new capacity is assured.

A convention of the Wall Paper Jobbers' Association was scheduled to be held at the Congress hotel during the week of October 10.

## IDLE TIME AS A MANUFACTURING LOSS\*

During this period of depression and sub-normal production this subject is timely and a problem most of us have endeavored to solve.

We hear the statement frequently that when production goes down, costs go up. Do costs go up?

If a company operates two plants in different localities the manufacturing costs in mill No. 1 would not increase because mill No. 2 was not operating. Therefore, the same reasoning applies regarding the cost of paper on one of two machines when the other is idle.

### Principal Problem of Cost Finding

The principal problem of cost finding is to assign the expense or burden so that each production unit shall bear its own share. An examination of the expense items will show that while some remain fairly constant others vary with the volume of the business.

Such items as rent, taxes, insurance and depreciation of buildings do not vary materially, whether the plant is active or not. Such expense can never become zero, no matter how slight the production. Depreciation may be greater when the factory is idle than when it is in operation. Other items of expense are affected by changes in the volume of business. Indirect labor and operating supplies are directly affected by such changes, moving up and down as the production varies, though not in direct proportion to such variations.

It is also important to notice that profits do not vary in proportion with the volume of the business. Fifty per cent production does not mean half profits as there is always an irreducible minimum of expense items and if this minimum is high compared with the variable charges due to the activities of the business, a slight decrease in business may cause an operating loss.

### Break Even Volume

In every business there is a break even volume, that is, every company must manufacture a certain number of units in order to carry the fixed overhead and that amount of direct expense, which becomes necessary to the manufacture of that particular quantity produced.

As soon as the company passes this point, however, the increase in percentage of profits is very marked inasmuch as the fixed overhead does not increase and each additional unit produced decreases the unit expense cost. Neither does the direct expense increase in any such proportion as amount of production. We must bear in mind that there is a great danger, even in increasing production, for the minute that you have to increase your fixed expenses, then there is a real problem to face. Increased production may only lower costs so long as it can be handled with the present plant and equipment.

Expense may vary according to time, as a large amount of coal may be purchased but the consumption of this coal may extend over a period of months. Extensive repairs may be made to buildings or machinery. These expenses will fluctuate with little reference to the amount of business handled, therefore it would not be fair to current production to charge off this heavy expense against it, as this method would favor either future or past production.

In establishing normal rates we must analyze expenses carefully over a sufficiently long period.

### Important Burden Volumes

Among the important burden items are such fixed charges as taxes (other than Federal income and excess profits), insurance, depreciation and repairs. Taxes and insurance should be distributed

on the basis of the net value of the equipment in each department. This only refers to fire insurance and taxes on the plant.

Depreciation is one of the most important of all the overhead expenses. There are several methods of figuring the amount of depreciation. A simple method for determining depreciation is to estimate the scrap value of the equipment and deduct this amount from the original cost. This difference is then divided by the estimated years of usefulness of the machine.

Repairs are also an expense item for the maintenance of the plant. The repair shop should be treated as an individual unit and each job repaired should be charged to the department for which the work has been done.

The power plant is an important factor and its operating costs form a considerable part of the burden. Each department using steam or power should be charged with its share of this cost. Records should be kept showing efficiency of the boilers.

Variable charges or controllable expenses such as miscellaneous supplies and non-productive labor are also items of factory overhead. These items should be charged to an account called general factory expense.

When all these charges making up the overhead or burden have been analyzed and carefully distributed to the several departments a total burden charge for each department can be ascertained. This total divided by the normal operating time established correctly will give a fair burden rate per hour.

### Errors in Establishing Normal Rates

Errors are often made in establishing normal rates over a period of a year. This method under normal conditions would be correct but in times like the present, when the situation six months ago was entirely different from that of today and with no expectations of that same condition being reached again for a long time. I believe it would be a serious mistake to include figures pertaining to the past period in arriving at present day standards as a measure for future operations.

The setting up of normal charges does not mean that we can abandon the analysis of actual burden costs. The analysis of actual expenses and estimated, reveals an interesting comparison.

Normal hours do not mean possible working hours as many hours are lost during the year on account of holidays, repairs, low water and similar reasons. In estimating normal hours it is necessary to make an allowance for lost time due to the above causes.

It is generally conceded that eighty to eighty-five per cent capacity is a normal production. I would recommend figuring for standards to be used on this basis.

In order to illustrate this point let us assume that a manufacturer after careful study and taking into consideration present conditions and trend of the times has established normal rates in the several departments through which his product progresses and he arrives at a beater labor and burden rate of \$1.60 per hour, machine rate of \$5.50 per hour, etc. The books of the company will be operated on costs as shown by these rates during the period decided upon.

### Cost of Idle Hours

As each month passes the costs of actual operation are found and measured against the normal rates and the difference noted. This difference represents the cost of idle hours and is chargeable to profit and loss or an unearned burden account.

For example, let us assume that the actual operating costs per hour over a certain period in relation to the standard or normal cost were as follows. I am presenting a theoretical cost, first arriving at a normal total cost, then showing how the idle hours affect this cost by departments. The normal beater labor and burden cost is \$1.60 per hour and the actual cost is \$2.40 per hour.

(Continued on page 20)

\*Address given by H. A. Wingate, assistant secretary C. H. Dexter & Sons, Inc., before the Cost Association of the Paper Industry at the Drake Hotel, Chicago, October 6, 1921.

## N. M. BRISBOIS NEW HEAD OF MICHIGAN SUPERINTENDENTS

Association Opens the New Year in a Flourishing Condition—

Under the Guidance of E. T. A. Coughlin, Retiring President, the Michigan Division Has Become One of the Most Influential in the American Pulp and Paper Mill Superintendents' Association—S. L. Bush, National President, Speaks Before the Kalamazoo Valley Division of the Cost Association.

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., October 10, 1921.—Nicholas M. Brisbois, general superintendent of the Sutherland Paper Company, is the president of the Michigan Division of the American Pulp and Paper Mill Superintendents' Association. He was named at the opening session for the ensuing year. The other officers elected at the same time are: First vice president, F. H. Gilman, Bryant Paper Company; second vice president, Michael Redmond, Kalamazoo Paper Company; third vice-president, G. W. Ulrich, Wolverine Paper Company; secretary-treasurer, George H. Fountain.

The association opens the new year in a flourishing condition. Under the guidance of Edward T. A. Coughlin, Monarch Paper Company, and retiring president, it has prospered and become one of the most influential divisions in the national body. Mr. Coughlin has been ably assisted in his work by George T. Fountain, who is retained as secretary-treasurer.

Plans for the coming year are now being formulated. Some of the best known men in the national paper trade will be brought to this city and deliver addresses at the regular monthly sessions. Invitations are now being sent out to these prospective speakers.

J. H. O'Connell, president of the national organization, told of the recent meeting of the executive board in New York City.

### Cost Association Meets

"Accounting Control" furnished a very interesting subject for the Monday evening session of the Kalamazoo Valley Division of the Cost Association of the Paper Industry.

The speaker was S. L. Bush, national president of the organization, and affiliated with the research department of the Crocker-McLiam Company, Holyoke. His talk was along technical lines. Three reasons were assigned for the maintenance of a cost system:

1. Regulation of selling costs
2. Completing the system of bookkeeping and accounting
3. Promoting efficiency in the mill

Mr. Bush recommended that all accountants make use of the new book just published by the cost association. It has a special section devoted to paper mill costs.

Following his address there was an extended discussion of the many points brought out.

Dinner was served before the program and about forty gathered about the table. Every mill in the Kalamazoo Valley was represented.

### MacSimBar Co. Orders Power Equipment

The MacSimBar Paper Company, Otsego, has placed orders for a part of the equipment of its new power plant. The company will install six 500 horse power Wickes boilers, and a like number of type F stokers. Details of the fuel economizers are now being worked out. As soon as all equipment has been determined on and laid out, Billingham & Cobb, engineers, will prepare the plans for the structure to house the plant.

### French Paper Co. Improvement

The French Paper Company, Niles, is rapidly completing the erection of a new power plant. Work on the foundations and

superstructures has been finished and a contract has just been awarded the Johns-Manville company for the roof. Private plans were prepared for this addition. It is estimated that the total cost of the structure will be \$70,000.

### D. Graff & Sons at Grand Rapids

D. Graff & Sons, paper stock dealers, have added to their list of branch houses a warehouse and office in Grand Rapids. They have erected a brick structure, three stories high and 75 by 150 feet in dimensions. The location is on the New York Central lines and the site is ample to provide for enlargements of the plant in the future.

## IDLE TIME AS MANUFACTURING LOSS

(Continued from page 19)

The normal machine cost is \$5.50 per hour while the actual cost is \$8 per hour, etc. The normal final result shows a cost of \$0.200 per pound, the actual or increase caused by the idle hours gives us a cost of \$0.248 or \$0.042 additional.

### Idle Machinery and Reduced Expenses

There has been in the past and there are still many different opinions as to the correct method of calculating and handling the increased cost occasioned by idle machinery and reduced production. Many companies figure these standards and charge the difference between the cost of manufacturing on that basis and the actual cost direct to profit and loss or an unearned burden account. I strongly believe that there is a great benefit to be obtained by going a step farther than this and show the unearned portion of the expense against the final cost in the manner described. It should always be figured separately, however, so that it will not be lost sight of.

Whether we believe it or not, the fact of having the actual cost before the manufacturer is bound to force him to the realization of the situation and I believe the average man with these figures "boiled down" and placed against the individual runs of paper is in a far better position to meet intelligently the problems confronting him and will make him a better competitor than he would be if he was simply presented with normal cost records, charging Idle Hours to Loss and Gain or some other account.

It is possible some may feel that it will entail too much time and labor to apply the expense caused by Idle Hours to the normal costs.

If records are kept in the proper manner, the additional labor required in doing this would be slight and by far would be more than offset by the benefit derived therefrom.

A manufacturer who has this information before him will have the facts needed in making his manufacturing and selling policies.

COST SHEET		Machine	Broke	400 #
		Turnings		450
		Defects		100
		Total		950
Date 9/15/21				
Machine No. 2				
Beaters No. 10				
Quantity	Run No.			
	Grain			
		Normal	Actual	In-
		Cost	Cost	crease
Raw and prepared material cost		\$1,050.00	\$1,125.00	\$75.00
Beater labor and burden, 180 hours \$1.60		288.00	432.00	144.00
Machine " " 45 " 5.50		247.50	360.00	112.50
Finishing labor	600 reams 1.2	72.00	84.00	12.00
" burden	1.10%	80.40	126.00	39.60
" material		70.00	70.00	
		1,813.90	2,197.00	383.10
Credit 950 # broken		28.50	28.50	
		1,785.40	2,168.50	
Selling expense		90.00	90.00	
		1,875.40	2,258.50	
Normal mfg cost	\$0.196 lb		Actual mfg cost	...\$0.237 lb
Total normal	206		Total actual	...248
Normal price per mach hour, \$8.88			Actual gain per hour...	\$0.40
Sale price, \$0.25 per lb				

**HIGH COLOR!**

**CLEAN!**

**STRONG!**

**MT. TOM**

**BLEACHED SULPHITE**

*May we quote?*

**A. J. PAGEL & CO., Inc.**

**347 Madison Avenue**

**New York**

## RIORDON PLANT AT KIPAWA MAY RESUME OPERATIONS SOON

**Company Has Been Realizing on Certain of Its Timber and Also on Some of Its Inventory and This May Have Aided Somewhat in the Work of Rehabilitation—Wayagamack Pulp and Paper Plant Is Now Operating at Full Capacity and the Future Looks Encouraging—Present Prospects Seem to Indicate That There Will Not Be as Much Activity in Canadian Bush This Winter as Last.**

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., October 10, 1921. The latest rumor, and at the same time one of the most favorable rumors, heard in connection with the Riordon situation in a long time past, is to the effect that the reopening of the Kipawa plant is under consideration. It is known that the company has been realizing on certain of its timber and also on some of its inventory and this may have aided somewhat in the work of rehabilitation. At the same time, this may not explain in full the more favorable prospects for the re-opening of the Kipawa plant, the financial requirements for which would doubtless be considerable.

Apart from the question of financing, favorable consideration of the proposal to reopen the Kipawa plant would be a most encouraging development, so far as concerns the pulp and paper industry. Reports have been coming in from many quarters of the gradual improvement which is taking place in the pulp and paper industry, and already it is said that a number of plants have been reopened. The addition of the Kipawa plant to this number would go to confirm the statement that the worst is now over and the recovery in the industry has begun everywhere.

Meanwhile, the Riordon Company, through its trustee, Gordon W. Scott, has obtained an order of the Bankruptcy Court, staying proceedings which have been taken against the company for claims granted by two judgments of the Superior Court. This step is taken to prevent further action by the Brunet Saw Mills, Limited, New Westminster, B. C., in realizing upon a judgment for \$3,939.23, and by W. A. Marshall & Co., of Canada, Limited, of Montreal, for \$8,794.94. The petition follows the taking of the two above actions, after a committee of the creditors, chosen by the creditors themselves, had granted a delay of three months to the company. A meeting of the creditors is to be arranged for some time this month.

### Abitibi Power & Paper Co. Passes Dividend

The Abitibi Power and Paper Company, Limited, have decided, at the meeting of directors held in Montreal, to continue the policy of conserving the liquid assets of the company, and they have therefore issued a notice to the shareholders to the effect that no dividend will be paid on the common stock for the quarter ending September 30. The notice added that the company's operations continued to be very satisfactory, and the net earnings for the quarter ended September 30 were substantially more than the amount necessary to pay the dividend.

This action on the part of Abitibi directors had been generally expected and had no effect upon the market for the stock. A story was in circulation during the week to the effect that in order to meet current obligations, the company had arranged the sale of \$500,000 of its bonds. It is stated on good authority that the statement is incorrect in that the company has not sold any of its bonds since the sale to Peabody, Houghteling & Co., of Chicago, of \$4,000,000 out of the authorized issue of \$14,000,000 eight per cent ten-year consolidated mortgage sinking fund bonds. Whether or not the Chicago firm has recently disposed of a block of these bonds is not known here.

One favorable factor for the company is that it has no large stocks of high priced pulpwood on hand, and will, therefore, be able to manufacture its news print from pulpwood cut under the much more favorable conditions now prevailing.

### Wayagamack at Full Capacity

A despatch from Three Rivers says that there has been a volte-face in the affairs of the Wayagamack pulp and paper plant. Recently, the situation looked quite unfavorable, and operations reached a very low ebb, while the prospects for business in the near future were none too bright. A change has come over the face of affairs. The company is now operating at full capacity and the future looks encouraging as far forward as can be seen. Orders in hand are of sufficient volume to keep the plant operating at capacity the remainder of the year and from present appearances, the situation for a further period will be equally assured when present orders are filled. The statement is heard here that it is not the intention of the company to send its own men into the woods this year to cut logs. Instead, it has decided to let a contract for a large cut.

### Kraft Paper Is in Good Demand

Reports which have been appearing frequently of late to the effect that an increase was developing in the demand for "kraft" paper seem to have taken definite shape in a decidedly brighter outlook for that branch of the paper industry. Representatives of mills manufacturing that grade of paper have been reluctant heretofore to make any prophecy as to future business on the strength of the more brisk demand which has recently been noted, but a canvass of the situation revealed the fact that there is a strongly founded feeling that the improvement is permanent, and that the near future will see still further betterment.

The improvement is supposedly based upon the gradual improvement of business lines in the United States which had large supplies of paper on hand when the slump came early in 1920. It is reported on good authority that these supplies are about exhausted, and that orders are coming in in increasing volume for new stock. While there has yet been no change in prices, it was stated that they would undoubtedly be higher in October if the present improvement is maintained.

The foregoing situation, if correct, will react favorably upon the position of several Canadian companies which are large manufacturers of kraft paper.

### Lumbering Operations Greatly Curtailed

There will not be as much activity in the Canadian bush this winter as there was last year. A number of pulp and paper concerns and lumber companies will not carry on any lumber operations at all on account of the surplus on hand from last winter's cut when exceptionally fine conditions prevailed.

The present situation is created by a good winter in the forest with a poor summer for business following. Owing to market conditions there is a very large amount of last year's cutting of pulpwood and lumber still on hand in the mills, and a large stock in the lumber yards, and it is anticipated that there will be very little activity this winter in Quebec, Ontario, or the Maritime Provinces, say lumbermen. A similar situation will likely exist in New York, New Hampshire and Maine.

The Abitibi Company, however, will do a larger amount of cutting and several camps are now being opened for this work. Last year this company could not get a large enough output from its contractors who had charge of the work, and this year, while business conditions will not be as great, a large cutting will be necessary, and the falling off so far as the Abitibi Power and Paper Company is concerned, will be slight.

The Howard Smith Paper Mills will not be as active as during

(Continued on page 24)



## *A New Green Dye for Paper*

National Brilliant Green B Crystals is the latest addition to the long line of "National" basic paper dyes.

Like other basic dyes of good quality it possesses brilliancy, excellent tinctorial strength and good solubility.

The research and experimental work which this Company has done in the paper-dyeing field is at the disposal of its customers.

**National Aniline and Chemical Co., Inc.**

21 Burling Slip, New York

Akron  
Boston  
Chicago  
Hartford  
Charlotte

Montreal  
Toronto  
Providence  
Philadelphia  
San Francisco



# NATIONAL DYES

## RIORDON PLANT AT KIPAWA MAY RESUME OPERATIONS

(Continued from page 22)

last winter. The Spanish River Company will do a lot of cutting but requirements will not be as large this year, owing to the amount of pulpwood on hand.

### Try Experimental Forest Plan Now

Everybody realizes the great benefit which the Dominion Experimental Farms have proved to agriculture in Canada. In the same way it is believed the Dominion experimental forests will prove equally beneficial to forestry. The Forestry Branch of the Department of the Interior is carrying on the work in these experimental forests, the principal station at present being at Petawawa, Ontario. Here are found cut-over lands similar to thousands of acres in Ontario, Quebec, and other forest provinces, and the work going on is to determine how most expeditiously to get these lands back under a forest cover that will produce good timber and pulpwood. This is the fourth season since the work was established and already the knowledge of how rapidly Canadian trees grow under different conditions of thinning, light, drainage, etc., has been greatly increased. Similar information has been collated in Europe for about a hundred years, but European figures will not do for Canada. It is too early yet to state results definitely but, generally speaking, what has been so far learned leads to the belief that tree growth is just as rapid in the parts of Canada under observation as in the timber-growing regions of Europe.

### The Outlook for the Paper Companies

Quite a controversy is raging here as to the outlook of the pulp and paper companies. On the one hand it is claimed that European competition will continue to force prices down, while on the other hand, there are those who maintain that the worst of the depression is over, and that from now on there will be a progressive improvement. Fresh contributions to this controversy have made their appearance this week, in the form of a pamphlet entitled "Pros and Cons of the News Print Situation," issued by the Montreal Stock Exchange firm of Riddell & Mathewson, and a special bulletin issued by the Canadian Pulp and Paper Association dealing with the relations of the American consumers of the Canadian product with the manufacturers. The pamphlet issued by Riddell & Mathewson is a summary of the opposing views on the news print situation. The conclusions reached in the pamphlet are as follows:

"This appears to us to sum up the criticisms and answers given by the two groups who see things so differently. The 'bulls' claim that just as people took too long distance a view of conditions in 1919-20, causing companies to extend plants, acquire further limits, and generally indulge in heavy expenditures in the belief that conditions then prevailing would hold for at least five years, that now the 'bears' are taking too short sighted a view and are too much influenced by passing conditions without allowing enough for what the future holds for this great industry.

"Looking at it broadly it would seem that Canada is the logical producer of wood products for the world's markets, having all the fundamentals that this industry requires, its enormous and full supply of electrical power, a class of laborers who have been lumbermen for generations, and are considered second to none in the trade, and proximity to a nation of 100,000,000, the largest consumers of paper per head of any country. With these advantages plus the prospect of gradual decrease of production in the United States owing to exhaustion of accessible spruce, it would seem safe to assume that well established and well managed Canadian companies with sufficient limits, up-to-date plants and good power contracts, are on a sound economic foundation, and their securities at present prices justify careful attention by investors."

The circular issued by the Canadian Pulp and Paper Association is a brief review of the growth of the Canadian export trade in news print with the United States. This amounts to 80 per cent of Canada's production, and it is pointed out that for twelve months ended August 31 American newspaper publishers purchased and used no less than 637,266 tons of Canadian news print, exceeding the record of the preceding twelve months, which included the period of the greatest demand for news print ever known.

Contracts for next year's supplies of news print are now being negotiated. They show no diminution in the American demand for Canadian paper, and the opinion is expressed that taking into account the quality of the Canadian products, the proximity of the mills of the American publishing centers, and other factors, American publishers will depend for their permanent supplies on Canadian mills rather than from paper from overseas, whose cheapness is dependent on the extent of a debased currency, which at the best can only be of temporary duration.

### Lord Northcliffe Purchases Limits

Lord Northcliffe, the English publisher, has bought three hundred acres of choice timberlands in the Conception Bay district of Newfoundland, from Joseph Seward of Glace Bay, N. S. The purchase price was \$50,000. Lord Northcliffe requires the timber for wood pulp for his paper mills at Grand Falls.

### New South African Paper Mills

The "Compagnia Portuguesa del Papel Mozambique" according to the Western European Division, Bureau of Foreign and Domestic Commerce, is planning the erection of a mill for the manufacture of paper, board, and cellulose at Ressona Garcia on the Transvaal border, reports Trade Commissioner P. J. Stevenson, accrediting the South African Printer and Stationer as authority for the statement. The chief raw material to be used by this plant will be the Lambouki grass.

Mr. Stevenson also reports that the Albert Falls Power Company (Ltd.), of Pietermaritzburg, Natal, plans the establishment of a similar plant within the Union of South Africa. This new company which was recently authorized by the stockholders, will have a capital of £200,000 and will be called the "South African Paper Mills (Ltd.)." Experts employed by the holding company of this concern have been experimenting during the past year and are now able to produce an excellent quality of wrapping paper from spent wattle tan, and they hope to soon be able to produce news print paper from wattle wood.

It is also reported that the Premier Paper Mills at Klip River, near Germiston, have now commenced the manufacture of wrapping paper.

Later on it is hoped to extend the plant in order to turn out other classes of paper.

These are good indications that the paper industry in South Africa is going to expand. Recent developments show an effort that is being made to produce within the country a part of the domestic requirements.

Prior to 1920 there were no paper mills in the country and all the Union's supplies were imported. The wrapping paper imports in 1920 were 69,984 hundredweight, valued at £267,825, of which the United Kingdom supplied 24,047 hundredweight, valued at £111,609; Canada, 20,076 hundredweight, worth £56,305; Sweden, 12,587 hundredweight, valued at £47,733; and the United States, 5,385 hundredweight, valued at £21,111. A small amount also came from Norway. It is improbable that the local product will be able to supplant the imported in the near future.

Established 1886

## Comparisons

*C*OMPARISONS are odious, but the practice of making them continues to be an excellent method of securing the maximum value at minimum cost.

*W*E invite comparisons  
—and thrive on them.

**M. GOTTESMAN & COMPANY**

INCORPORATED

**18 East 41st Street**

**New York, N. Y.**

**BRANCHES AT**

**Holyoke, Mass.**

**Kalamazoo, Mich.**

## GAIN IN DEMAND CONTINUES IN THE PHILADELPHIA MARKET

**Improvement Seems to Be Permanent and the Character of the Trade Points Out Unmistakably a Sound, Healthful Condition—Steadiness of Prices Since the Beginning of the Month Has Had a Stimulating Effect on the Demand for Wrapping Paper—Good Gain in the Demand for Fine Paper, From Printers in Cities Outside of Philadelphia—Betterment in the Paper Stock Market Encouraging.**

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, October 10, 1921 Though the gain in business during the past week over the preceding was not of large proportions, the trade is almost as pleased as it had been considerable. The outstanding fact of importance is that betterment has been continuous, that there is no longer question of the permanence of the improvement and that the character of the trading is such as to point out unmistakably a sound, healthful condition. There is realization of the fact that at this particular time anything partaking of the character of a boom, would in all probability be unnatural and would be followed by a reaction. It is the steadiness of the market, its freedom from the "spottiness" of earlier days that gives the trade such real satisfaction. There were never many pessimists in the ranks but a tour of all the representative houses fails to find one which looks with any doubt on the future. There is as well almost as great a scarcity of mere "hurrah" talk.

### Best Gain in Wrappings

If there was any advantage in the week's gain between the fine and the wrapping paper branches of the business it was in favor of the latter. The steadiness of prices since the month began has had a stimulating effect, buyers still insisting there must be reductions certainly are not evidencing their beliefs that they will come, by holding off orders for their requirements. Buying in advance of the needs of the immediate future has not occurred but there is unquestionably more cheerfulness and liberality in estimating those needs than there has been shown at any time since the tendency of business turned upwards. Requirements for coarse papers have increased to such an extent that orders must be placed now whether the buyer really believes that lower prices are ahead or not. With the increased steadiness of the market there has resulted, too, a very decided lessening of the slashing of prices merely to get orders. Virtually all the stocks, on the hands of the jobbers, have been cleared away or have their end in sight and trading has gotten down to a replacement cost basis. Tissues continue in very good supplies and prices are steadying. Screenings bogus and the lower priced papers are selling fairly well at prices still low but with values much more firmly held than when the month began.

### Good Gain in Fine Paper Out of Town

In the fine paper division there was rather noticeable improvement in sales out of town but comparatively little betterment in city business. Printers in the larger centers of Pennsylvania and of New Jersey are generally quite busy, an important element in their activities being orders of Philadelphia origin which are going out of town because there has not been such a reduction in printing prices here as has been made outside the city where labor has been willing to submit to a wage reduction proportionate to the lowering of living costs. The opinion is very widespread among the fine paper distributors that the refusal or the unwillingness of the printing industry in this city to revise wages is responsible for the rather poor printing paper market here. Printers are a

course the best customers of the fine paper distributors. They will not openly criticize the printers but there is a deep seated conviction among the paper men that failure of the printers to bring down prices is a deterrent influence on the paper trade.

### Betterment in Paper Stock Market

Betterment in paper stock market continues to be the outstanding feature locally. Both the rag and old paper packers share in the gain. The paper packers report that there is now no trouble at all to dispose of all the mixed, commons and old news which they are able to get together, at recent quotations, but that there are no large stocks available because the mill price is still too low to induce thorough collections. A few of the jobbers who had large storage facilities and who in the days of depressed prices stowed away this grade, have disposed of all this stock because even though there is certainty of better prices the required room is more valuable than the stock. They feel that it can more profitably be employed for storing the better grades of stock against the time when there shall take place the same advance of mill prices as recently has taken place in the cheaper grades. Until prices increase by 50 per cent to about \$15 a ton, dealers say, there will be no incentive for the gathering of this grade from households which still are burning old papers. Inquiries for old books and magazines increased in number during the week especially from Western mills. The sale of ten carloads of this grade at \$30 a ton was reported by one of the largest of the local dealers. In the rag stock market, buying is most active for the cheaper grades, by roofing paper mills but there is, too, decided betterment in the market for new and old white cuttings.

### Plans for Paper Trade Meetings

The special committee appointed to report to the Philadelphia Paper Trade Association a program for the Fall and Winter meetings of the fine and wrapping paper divisions and for the association itself, met last week at the Bellevue-Stratford with Morgan H. Thomas presiding. It was decided to recommend that there be adopted the general plan of having a definite subject for consideration at each meeting with that member of the trade best qualified, to take charge of the meeting and to conduct the symposium. Trade customs, reduction of overhead, relationship with the printers as a class of buyers which resells its paper purchases and similar subjects were suggested as desirable for consideration. Details of the program will be filled in by the divisions at its meetings to be held semi-monthly and alternately.

### J. L. N. Smythe Co. Conference

The sales force of the J. L. N. Smythe Company met in Fall Conference at headquarters during the week. Notable in the gathering were A. D. Johnson in charge of the Chicago branch office and G. T. Guerrero who has just returned from Mexico City, Mexico, where he opened a branch office for the company and through which a large South American trade will be handled. A full line of the J. L. N. Smythe stock will be carried in the Mexican branch. The company has just been appointed distributors for the Baeder-Adamson mill production of rope and heavy kraft papers. After complete renovation the Baeder-Adamson mill is now operating with two shifts of thirty hands and with a daily production of 10 tons of No. 1 rope, No. 1 kraft, and jute specialties, only part of which, however, will go on the market, almost half being used by the company itself for sanding and similar purposes. Recent additions to the mill included a 60 by 100 feet machine room, a 20 by 50 feet addition to the heater room and a one-story brick and concrete storehouse 75 by 95 feet. C. A. Kelly is general superintendent of the mill.

### N. J. Considine to Visit Finland

The Paper House of Pennsylvania on Friday of last week received a cablegram from President Norbert J. Considine, now  
(Continued on page 28)

# J. Andersen & Co.

21 East 40th St., New York, N.Y.

## A-1 Bleached Sulphite

Agents for  
**KELLNER-PARTINGTON PAPER PULP CO. LTD.**  
Borregaard, Norway

# WAYAGAMACK

## KRAFT PULP

*Uniform in Quality*  
*Essential for Strength Requirement*

**The Pulp and Paper Trading Company**  
21 East 40th St., New York, N. Y.

Sole Agents for United States for  
**CANADIAN KRAFT, Ltd.** Three Rivers, Canada

## GAIN IN DEMAND CONTINUES IN PHILADELPHIA MARKET

(Continued from page 26)

abroad in the interests of the new Argo Paper Mills Corporation, announcing that he had left Stockholm, Sweden, for Helsingfors, Finland, and would be there all this week following which he will start back home. Mr. Considine reported the paper industry of Germany at a complete standstill because of the general strike which took place just a week ago. He has made contracts for a pulp supply for the Argo Mills. The company is confident of its ability to turn out the first news print under contract with the *Record* and *North American* newspapers the second week in January.

### General News of the Trade

The executive offices of the Franklin Paper Company were removed during the week from 718 Cherry street to a suite on the fifth floor of the Vandam building, 1101-1105 Market street. The Cherry street building will be retained for stock storage purposes.

The Eagle A monogram of the American Writing Paper Company was emblazoned during the week on the show windows of the Garrett Buchanan Company, the Philadelphia distributors. The company is reinforcing its second floor with steel girders, preparing to carry a much larger stock of American and others papers than in the past.

The Gatti McQuade Company which recently took over a large warehouse on North American street is installing a steam heating system in it. Manager Robert H. Barr is dividing his time between the Philadelphia branch and New York headquarters.

An additional storage building 40 by 180 feet is being erected by the National Waterproofing Company, Drexel Building, in South Camden, adjoining its large plant there. The company manufactures and distributes case linings and waxed papers.

A majority of the creditors of A. Rose & Son, stock dealers, who recently announced financial embarrassment, have signed the approval of a composition on the basis of 40 per cent. The company will pay immediately a cash installment of 20 per cent with four successive payments of 5 per cent each at intervals of three months, secured by notes. The assets are estimated at about \$12,000 and the liabilities at \$55,867. Pending full acceptance the company is conducting its paper stock business under the style of A. & H. Rose. It ascribes its difficulties to the recent depression and to losses sustained through three failures of debtors.

Stockholders of the Moore & White Company have been called in special meeting on November 1 to act upon the proposition of an issue of \$100,000 of 10 per cent cumulative preferred stock to be exchanged for the present issue of \$100,000 of 7½ per cent preferred stock. The company is now erecting for the Standard Paper Company, Richmond, Va., a 102-inch Fourdriner machine installed in a remodelled building in the Standard plant. Production from the new machine is anticipated two months hence.

Published notice that application of the Bisler Paper Box Company for a decree of dissolution would be heard in Common Pleas Court No. 5 on October 31 occasioned much interest in trade circles. The explanation is made that the application is a mere legal requirement arising from the recent consolidation with the G. A. Bisler Company, Inc., of the Bisler Paper Box Company of Pittsburgh, Pa.

Orders at the McDowell Mills, Manayunk, are increasing to such an extent that full time operations shortly again are to be resumed.

D. E. Farley and F. J. Farley of the Amboy Paper Company, Norristown, were haled before Judge Audenried in the Common Pleas Court last week to explain why Maurice Ewing, Kram's avenue, Manayunk, an employee of the mill, had been discharged by Superintendent Enough on September 28 shortly before termination of his services as a juror. They explained that the man

had merely been notified that another had taken his position and that the letter had been sent without their knowledge and that Ewing would be restored to his old position. Judge Audenried instructed the Farleys to inform their superintendent that it was dangerous to write letters such as he had sent to his employee and that a discharge because of jury service was actionable.

Improvements to the R. T. Moorehouse mill have been completed and last week the mill went on full time operation producing kraft, cover and book papers.

Frank J. Schneller, sales manager of the Gilbert Paper Company, Menasha, Wis., made trade rounds during the week with its bonds and ledgers.

W. Harry Goebel, manager of the papeterie department of the Garrett Buchanan Company, is enjoying a much belated vacation in Atlantic City.

Tribute to the Dill & Collins Pulp and Paper Mills at Manayunk and Port Richmond is given in a feature article in the October issue of *The Girard Letter*, house organ of the Girard National Bank. After describing the pioneer part played by Philadelphia in the American paper industry and setting forth the enormous consumption of paper in the United States, the largest proportionately in all the world, and averaging 700 pounds per year for the average American family of five persons, the article says: "As its greatest representative in this enormous field of manufacturing activity the Dill & Collins Company maintaining its selling agencies all over America and also reaching out into Europe, has a peculiar claim upon the admiration of Philadelphia, which is the mother of America's first paper mill." The article says that Philadelphia made the first paper in the United States and that a Philadelphian, Thomas Gilpin, turned out the first complete machine-made paper in America.

### Improvement in Chicago Continues

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, October 10, 1921.—The trade in Chicago continues to report a better trend to business. Buying is said to have been showing more and more strength and some of the houses are now doing the biggest business they have in the past nine or ten months. However, it is further said that business is by no means normal. Many houses here say that they were hardly doing any business at all for some time. Now they say that they are taking orders.

In an interview with Emanuel M. Mendelson, of Mendelson Brothers Paper Stock Company here, Mr. Mendelson said that he was optimistic because he could see all about him signs of recovery.

"It is not only the paper business which is beginning to show signs of better business," he said. "The stock market, oil, banks, steel, wool, everything almost, is taking a fresh hold and beginning to quicken. With all these signs of improvement the paper business will have to improve."

Board sales continue to warrant reports of an improving condition.

The six months' agreement signed by the local printing organization and the unions last spring is up November 1. What will be done to keep the wheels of the printing industry going is not certain just yet.

### To Open Boston Sales Offices

The Groveton Paper Company, Inc., and the Claremont Paper Company, Inc., will open their new combined New England sales offices in the Unity Building, 185 Devonshire street, Boston, on October 17. T. K. Davis is district sales manager.

# 1,000 feet a minute

This is the world's record for newsprint paper reached on August 10, 1921, by No. 9 machine in the mill of the Laurentide Company, Grand Mere, Quebec. The machine continues to run at this rate of speed. The record for length of runs is 22 hours **without a break.**

The screens used are BIRD SCREENS

This is of great importance. Fast running demands an almost perfect stock. Lumps and slime are increasingly troublesome as the rate of speed goes up. Every break makes a lot of work. Time lost for blowing out screens means a greater loss of production, because the higher the speed, the more paper is or is not made in a given time.

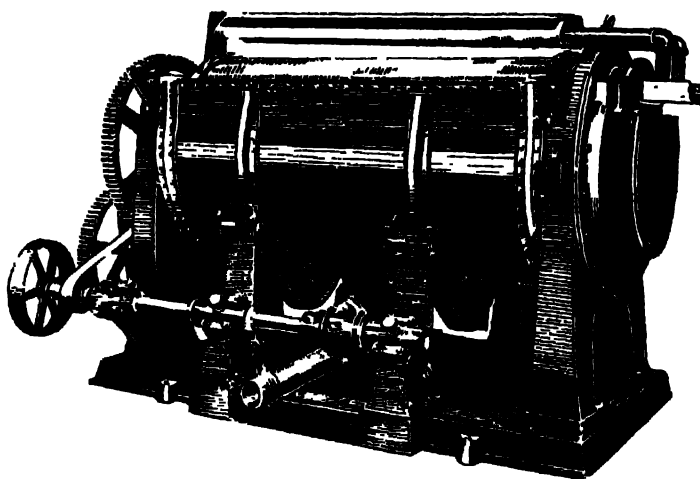
BIRD SCREENS are a factor of real importance in making it worth while to operate paper machines at high rates of speed.

## Bird Machine Company

South Walpole, Mass.

*Western Representatives*  
J. H. Sayers, Jr., 1718 Republic Bldg.,  
Chicago, Ill.

*Canadian Builders of Bird Machines*  
Canadian Ingersoll-Rand Co., Ltd.  
260 St. James St., Montreal, Canada



The Screen that  
helped to do it

# BIRD ROTARY SCREEN

## STEADY IMPROVEMENT SHOWN IN THE TORONTO PAPER TRADE

**Orders and Production Are Constantly Increasing—More Activity in the Waste Paper Market With Price Advances in Some Varieties of Paper Stock—Paper Jobbers Also Are More Optimistic Than They Have Been In Some Weeks and Report More Inquiries and More Actual Orders for Paper—Reports from Lumber and Pulpwood Concerns Indicate That Logging Will Be Limited.**

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, October 10, 1921—Market conditions show a steady improvement and all along the line there is ample evidence of a betterment in the pulp and paper line. Production is increasing and so are the number of orders. A fair indication of better days is that the waste paper market continues firm and the prices for cuttings and blanks have gone up as well as the quotations on folded news and mixed papers. In domestic rags the tone of the market is considerably stronger. Prices have advanced and stocks are scarce. Roofing rags are much firmer.

The Howell Trading Company, Toronto, which will shortly be come incorporated, is resuming active connection with the rag and paper stock market, with which Mr. Howell was formerly for many years associated. He has been out of the business for some time.

Manufacturing stationers, envelope producers and other allied lines are much busier than they have been for a long time and are looking forward to a prosperous business until the end of the year. Jobbers also are in a much better frame of mind than they have been for weeks and report more orders and more inquiries.

It is the general belief that all prices are now down to rock bottom in the paper market and no changes are looked for until after Christmas at any rate, and then the revisions are likely to be upward. It is felt that prices have declined to a stable level based on the reduction in manufacturing costs and the outlay for raw materials. During the past some jobbers have been cutting prices, listening to the siren song of customers, "Oh you are too high! We can get it for less from So and So." This plausible plea worked in a great many instances during the summer, but the wholesale trade are not harkening to that kind of talk now and are sticking much closer to list prices.

Manufacturers claim they have been doing more than the jobbers to stabilize prices and now they are asking the co-operation of the wholesale trade to place all transactions in the pulp and paper line on a firmer footing and re-establish confidence in both prices and production. There is no doubt that a more optimistic feeling is prevailing in the trade this month than there has been for some time and price cutting and price reductions are not nearly so much talked about. In fact, the trend of events is in the other direction. The pulp market is quiet as yet and shows but little life. Kraft paper is having a good sale and other lines of wrappings, with the exception of manilas, are active. Toilet and tissue mills are running to capacity. Vegetable parchment was recently reduced in price, but coated papers are holding firm and it now looks as if there will be no lessening of the present values.

### Forestry Students Are Well Employed

The registration at the Faculty of Forestry, Toronto University, this year numbers sixty one, which is the largest on record. Last year there were fifty-five on the list. The Faculty of Forestry has turned out some sixty graduates, all of whom are employed in responsible positions either in government service or with pulp and paper and lumber companies. The fourth year men of the school are taking a two months' course at a practice camp in the Temagami forest reserve under Professor Miller. Dean Howe of the Forestry School says that two returned flyers have been engaged in aeroplane patrol work for the provincial forestry service and one for the Dominion Government. These men have expressed themselves as very enthusiastic about the future of aeroplane work for forest fire protection.

gami forest reserve under Professor Miller. Dean Howe of the Forestry School says that two returned flyers have been engaged in aeroplane patrol work for the provincial forestry service and one for the Dominion Government. These men have expressed themselves as very enthusiastic about the future of aeroplane work for forest fire protection.

### Pulpwood Cut Will Be Small

Word received from the different lumber and pulpwood companies of the province shows that logging operations will this season be conducted on a limited scale and will not average more than one-third of the number of camps that were put in a year ago. The reason is that lumbermen still have large stocks of lumber in pile and the market outlook is not regarded as any too bright for 1922, particularly in the export trade to Europe. In pulpwood all the paper companies have a big supply of wood on hand. The Spanish Pulp and Paper Mills will take only about fifteen thousand cords off their Sturgeon concession this winter, whereas last year they cut one hundred and twenty-five thousand. This is a fair indication of what other companies have planned for the coming season.

### Disease Affects White Pine Trees

Dr. J. H. Faull, of Toronto, for the past four summers has been investigating timber diseases, chiefly against a certain white pine blight affecting trees in a stand covering over 5,000,000 acres, about seventy miles north of North Bay in the Temagami Forest Reserve. The disease is a physiological one and is caused mainly by an adverse combination of soils and climatic conditions. The blight affects young pine needles, changing the tips to a reddish hue, and after a number of years the trees die. Owing to the nature of the disease treatment is not possible but it can be combated by a judicious cutting policy.

### Paper Merchants Convene This Week

A large number of wholesale paper dealers from Toronto, Hamilton and other parts of the province left for Montreal this week where they will attend the annual convention of the Canadian Paper Trade Association, which will be held at the Windsor Hotel on October 12 and 13. A number of important matters are to come up and among them that of the null relations committee, a discussion of the "long list," the annual reports of the officers, etc. A Clarke Hunt, of Winnipeg, will read a paper on "Costing Every Sale—Its Value and Importance." The visitors will be entertained at a luncheon by the Canadian Pulp and Paper Association and will also be given a dinner as the guests of the Montreal members of the association. The present officers of the Canadian Paper Trade Association are: Honorary president, J. F. Ellis, Toronto; president, C. W. Graham, Hamilton; first vice-president, E. W. Dawson, Montreal; second vice-president, C. J. Kay, Vancouver; treasurer, E. S. Monroe, Toronto; secretary, N. L. Martin, Toronto.

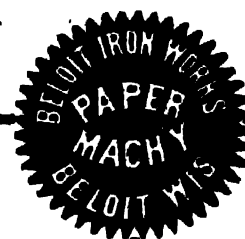
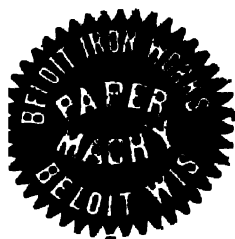
### Paper Firms Made Fine Displays

At the Bakers' World Fair and Convention, which was held during the past week in Toronto and attended by three thousand bakers from all parts of Canada and the United States, there were many exhibits of interest. Among the manufacturers of waxed papers who made creditable displays were the British American Wax Paper Company, Toronto (which turned out the first waxed sheet in the Dominion many years ago), the Canadian Nashua Paper Company, Peterborough, and the Dominion Envelope and Carton Company, Toronto, manufacturers of folding boxes, envelopes and confectionery bags.

### Mr. Backus Pleases Kenora People

Mayor George A. Toole, of Kenora, Ont., says that the amount of work done in that town by E. W. Backus, of the Fort Frances

(Continued on page 56)



# B. I. W. Steam Joint

## *Has*

Ball and Socket Fits  
Safety Valve  
Ground Faces  
Experience .

## *Eliminates*

Excessive Wear  
Accidents  
Packing  
Experiments

—  
*Ask Us*  
—

## Beloit Iron Works

Beloit, Wisconsin



## WISCONSIN PAPER BUSINESS SHOWS SOME IMPROVEMENT

**Whiting-Plover Paper Co. Doubles the Output of Its Mill at Stevens Point—Other Writing Paper Mills Also Report an Improvement in Business—Wisconsin Paper Mill Owners May Be Haled Into Court on Charge of Killing Fish by Dumping Mill Refuse into River in Alleged Violation of State Law—Paper Mills at Mosinee and Stevens Point Said To Be Biggest Offenders.**

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 12, 1921 - Improvement in business in the paper industry is seen in the announcement by the Whiting-Plover Paper Company at Stevens Point that it has doubled the output of its mill in the last week. More than 100 men and women were given employment.

Two paper machines now are in operation. One has been running since the first of the year but business increased to such an extent that the second machine was necessary and the company now is six weeks behind in its orders. About 300 men and women now are employed. About 200 have been engaged continuously since last winter.

Other writing paper mills also are reporting an improvement in business, although in most cases it has not been nearly so marked as with the Whiting Plover Paper Company.

Part of the Niagara mill of the Kimberly-Clark Company was closed down for a few days last week because of lack of orders. The company's other mills, however, have remained in operation.

Paper mill men, generally, are not commenting on business conditions. This is due partly, it is said, to the very uncertainty which makes predictions as to general revival almost impossible. But in spite of the continued slump there is an optimistic tone to their conversations which indicates the belief that a real revival is not far off.

The Valley Paper Mills Company is not deterred by present conditions but is going ahead with its building plans. The company is meeting with fair success in its stock selling campaign and officers declare there is no difficulty in obtaining the required capital.

### Say Paper Mills Pollute River

Officials of the Portage County Fish and Game Protective Association are making preparations to hale Wisconsin river valley paper mill owners into court on a charge of killing fish by dumping mill refuse into the river in alleged violation of a state law. This action was determined at a recent meeting when it was decided that protests to the State Conservation Commission are unavailing.

Paper mills at Mosinee and Stevens Point are said to be the biggest offenders. It has not been determined whether the officials will seek warrants for arrest of the mill officials or whether an injunction is to be asked for. It is alleged that spawning beds have been ruined and fishing almost totally destroyed by the deposit of mill waste in the streams.

### General News of the Trade

While waterpower users in the Fox river valley are able to make better use of their power facilities, the Menominee river at Marinette and Menominee is the lowest in years and mill owners have been compelled to conserve their water as much as possible. It has been necessary to depend quite largely on steam the last few weeks.

More coal is being transported up the Fox river from Green Bay to paper mills at Kaukauna, Combined Lock, Kimberly, Appleton and Neenah this year than ever before. With the close of navigation

about two months off, the Fox River Navigation Company, made up of mill owners, is speeding up coal transportation. It is believed the yards will be filled sufficiently before the river freezes over that it will not be necessary to depend on the railroads for any coal the coming winter.

G. W. Mead, president of the Consolidated Water Power and Paper Company, Wisconsin Rapids, was one of the principal speakers at the annual meeting of the Congregational Church in Wisconsin at Eau Claire last week. Mr. Mead conducted a round-table discussion of "The Church and the Community." Mr. Mead is noted in Wisconsin and in the country for his liberal policy toward labor and his knowledge of the human element in labor prompted his selection as leader in the discussion.

Frank J. Sensenbrenner of the Kimberly-Clark Company was one of the main speakers at the laying of the cornerstone of a new hospital in Appleton on Sunday. Mr. Sensenbrenner was one of the leaders in the movement to build the hospital and his company was one of the largest contributors. A. J. McKay, general manager of the Combined Locks Paper Company, also was a speaker. Mr. McKay is trustee of the building fund of \$500,000 which was raised by popular subscription.

The Combined Locks Paper Company will be located in its new office building in Appleton in a few weeks. Furniture and office records now are being moved from the mill to this city. Mill officers will be maintained at Combined Locks and the Lakeview mill at Neenah, but the general offices will be in Appleton.

### Fox River Paper Co. Issues Bonds

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 10, 1921 - The Fox River Paper Company, Appleton, has announced the issue of \$1,250,000 in bonds to pay a portion of the cost of purchasing and remodeling the Telulah mill which the Fox River Company secured from the Kimberly-Clark Company more than a year ago. Only \$750,000 of the authorized issue are offered now, the remaining \$500,000 to be offered as payments on the purchase price of the Telulah mill become due. These payments are to be made annually over a period of years. The bonds will mature in 1931 and bear interest at the rate of 7 per cent.

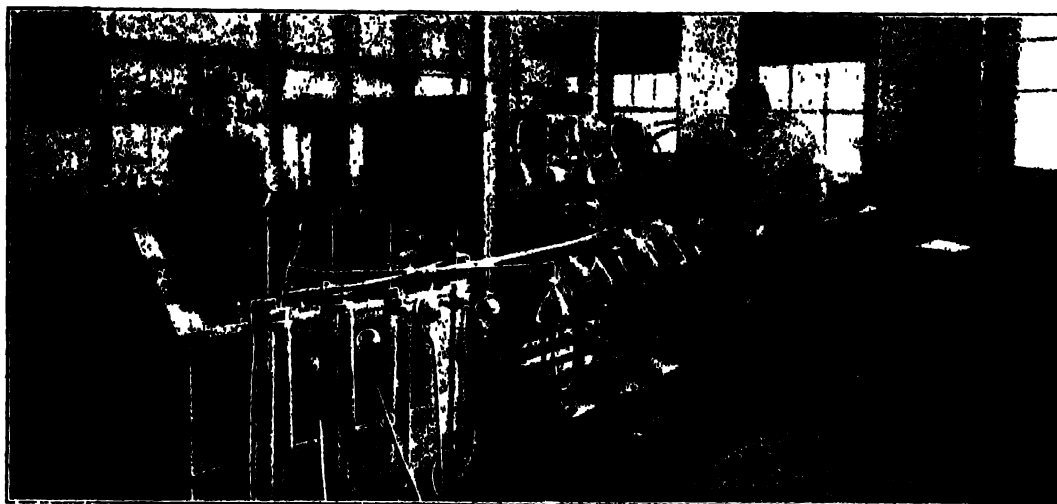
Purchase and remodeling of the Telulah mill, which has not yet been placed in operation, cost more than \$1,500,000, according to President William C. Wing. The purchase was made in July of 1920 but the Fox River Company did not come into possession of the property until last January. It was proposed to start the plant early in the year but delay in completing the overhauling and business conditions resulted in one postponement after another and it is not known now when the plant will be started.

Prospectus issued by the company states that the value of the property, after depreciation, is \$3,250,000 and that total net tangible assets exceed \$3,800,000 or more than three times the bond issue. It was stated that from 1916 to 1920 the earnings of the company, after depreciation and taxes had been accounted for, averaged 4.42 times the interest charge on the \$750,000 bond issue. These earnings did not include the income from the Telulah mill.

### Claremont Paper Co. Makes Exhibit

CLAREMONT, N. H., October 10, 1921 - The Claremont Paper Company, Inc., made a very interesting exhibit of its products at the Claremont Fall Festival held here early this month. In addition to its exhibit of paper the company also showed various articles made from paper, including paper clothing, showing the wide use to which paper is now being put.

The fair was started with the idea of doing something to stimulate business. It was a huge success and it is now talked of making it an annual affair.



*In this laboratory, solubility research is conducted on the materials used in the production of dyes as well as the products of the intermediate processes*



*One Building of the Jackson Laboratory used for Dye Research*

## PAPER DYEING BOOKLET

Du Pont Dyestuffs and their application on paper are thoroughly treated in a loose-leaf, Fabrikoid bound pocket volume.

Complete dyeing directions, with samples showing the results obtainable, are given for each of our many paper dyestuffs.

Each paper mill should have its volume.

### *Solubility of Dyestuffs*

*The solubility of a dyestuff is one of its most important qualities. A dye which is perfectly soluble, in the vast majority of cases, is one that has been prepared from pure intermediates by the correct formula.*

*But an intermediate to be pure must also be perfectly soluble, the whole being free from all foreign soluble matter. Very often the only way of separating two or more intimately associated chemicals is by taking advantage of the differences in their solubilities.*

*Purity, solubility and identity are qualities possible in every chemical compound, but they are interdependent.*

*The purity and solubility of Du Pont Dyestuffs are the result of a thorough knowledge of all the qualities of the chemicals that go to make them. Note their solubility.*

**E. I. du Pont de Nemours & Co., Inc.**

*Dyestuffs Department*

**WILMINGTON, DELAWARE**

*Branch Offices*

New York      Boston      Providence  
Philadelphia      Chicago  
Charlotte N. C.



## CERTIFICATE BOND AGENTS MEET IN AND NEAR HOLYOKE

Conference Lasting Three Days Is Held by the Crocker-McElwain Co. With Its Selling Agents From All Over the Country—Wednesday and Thursday Given Over to Discussions of Business and Topics Closely Identified With the Production of Certificate Bond Sales Policies, Etc.—Friday Is Given Over to Entertainment—Those Who Attended the Conference.

[FROM OUR SPECIAL REPRESENTATIVE]

HOLYOKE, Mass., October 8, 1921.—The three days' conference of the selling agents of Certificate Bond, a product of the Crocker-McElwain Company of this city, was brought to a close yesterday with a luncheon at the Hotel Curtis, Lenox, Mass. Nearly sixty of the leading paper merchants of the country, some located as far away as Omaha, Neb., and Portland, Me., made the journey to be present at the second annual conference of the "Certificate Bond" agents and that they were well repaid for their effort was shown by the interest taken during the three days' session.

### Discussions of Business

There was not a dull moment from the opening of the conference on Wednesday morning at the Hotel Nonotuck until the closing hours of the sessions. Wednesday and Thursday were given to the discussions of business and topics closely identified with the production of "Certificate Bond," sales policies, etc. Those to whom special subjects had been assigned spoke as follows on Wednesday: C. A. Crocker, president Crocker-McElwain Company, "We hope you're as glad to be with us as we are to be with you"; R. F. McElwain, vice-president Crocker-McElwain Company, "Forethought in the Paper Mill Saves Trouble in the Printshop"; A. H. Hill, vice-president, "Here We Are Again"; K. S. Warner, chairman of advisory committee 1921 conference, "Your Committee"; E. C. Tucker, manager of production, "Taking the Tucks Out to Put the Printability In"; C. H. Hill, manager of maintenance, "Only Lack of Water or Orders Shut Us

Down"; R. F. McElwain, vice-president, "Certificate Bond Reservoir Plan"; R. S. Litchfield, manager of sales, "Method of Distribution—Agency Policy."

### Inspect Crocker-McElwain Plant

At the close of Wednesday's business meetings an inspection of the plant of the Crocker-McElwain Company was made, followed by an auto trip around the Paper City and its environs. During the dinner served at the Hotel Nonotuck, entertainment was given by the Boston Quintette, a famous musical organization from the "Hub."

### Thursday's Sessions

The conference assembled early on Thursday morning for the final sessions, during which the following talked on their assigned subjects: C. H. Barr, director advertising division, Crocker-McElwain Company, "Advertising Plans and Sales Promotion"; F. H. Roche, "Certificate Process for Halftone Printing on Certificate Bond"; I. B. Spafford, president the Spafford Company, Boston, "Certificate Bond Advertising"; Brad Stephens, Boston, "Paper Advertising."

### Pleasant Automobile Trip

After lunch all started on an auto trip of over one hundred miles, which took them over the "Mohawk Trail" and through a section of the country ascribed by tourists as the Switzerland of America. The trip in itself was ample reward for the journeys made by members to the conference. A bountiful repast awaited the visitors at the Hotel Curtis, Lenox. One temporary jar occurred at this point and caused some anxious moments. This was the failure of the baggage to arrive. This had been sent by auto over another route requiring one half the time taken by the sightseers and all had looked forward to its being on hand when they arrived. All sorts of rumors were circulated as to its delay and the one generally accepted as being true, was that the auto and its chauffeur had been seized by county constables as being suspected of carrying a much desired product other than paper. This anxiety, however, was shortly relieved when the auto hove in sight and the chauffeur announced that the "timer" furnished by "Henry," the father of them all, had failed to function.

(Continued on page 35)



SECOND ANNUAL CONFERENCE OF CERTIFICATE BOND DISTRIBUTORS PHOTOGRAPH TAKEN BEFORE NONOTUCK HOTEL, HOLYOKE

*Service that means 100% Satisfaction*



UR Pulps have a reputation for highest standards of quality and uniformity.

*Among our well-known brands are:*

**BLEACHED SULPHITE** { "Bear"  
"Forshaga"

**STRONG and EASY  
BLEACHING SULPHITE** } "Klarafors"

**STRONG KRAFT and  
BLEACHABLE SULPHATE** } "Hurum"  
"Bamle"

We are in a position to take care of your requirements regularly and in a satisfactory manner.

Our services are at your command. Let us have your specifications NOW.

**THE  
BORREGAARD COMPANY**

Inc.

200 FIFTH AVENUE,

NEW YORK CITY

*Quality—it means more than price*

## New York Trade Jottings

Most of the members of the trade in New York, who attended the Convention in Chicago last week, are now back at their desks in this city.

\* \* \*

Motion pictures showing the manufacture of paper are being made available for distribution by the American Paper and Pulp Association, to educate the public to the importance of the industry.

\* \* \*

A petition in bankruptcy was filed last week against the Printers' Paper Stock Company, Inc., of 398 West Broadway by these creditors. Michael Pascarella, \$700; Michael Catoggio, \$2,143. Judge Mack appointed Susan Brandeis receiver, under \$500 bond. It is stated that the liabilities are about \$9,000 and assets about \$2,000.

\* \* \*

The Board of Directors of the International Paper Company have declared the regular quarterly dividend of one and one-half per cent on the preferred capital stock of the company. This is payable October 15, 1921, and to preferred stockholders on October 7, 1921. Col Haskell, vice-president of the International Paper Company, is expected to return on Thursday the 13th from a trip to Canada.

\* \* \*

John S. Beach, formerly of Parsons & Whittemore, Inc., of this city, is now associated with R. L. Stevens, Jr., in the Woolworth building. Mr. Stevens is the New York representative of the Rhinelander Paper Company, of Rhinelander, Wisconsin, and of the Paper Novelty Company of Green Bay, Wis. Mr. Beach will be pleased to see any of his friends in the Woolworth building at any time, at Room 2910.

\* \* \*

The World's Series appears to have transferred the activities of many of the members of the trade from the office to the polo grounds. The representative of the PAPER TRADE JOURNAL was told in going about among the trade that the only reason many of the companies did not suspend activities altogether during the series was because the great improvement in business demanded so much attention.

## CERTIFICATE BOND AGENTS MEET

(Continued from page 34)

All were up bright and early yesterday morning in anticipation of the golf tournament, which was held on the course of the Lenox Country Club. Walter Perry, who had charge of this feature of the program, carefully scanned the handicaps offered by the entrants and when he posted the list of players it was found that all were just "honest to goodness" amateurs. The gallery which followed the players found much to enjoy, especially in the playing of Bradley, who took 112 from tee to green and holed in two or three. The play aroused such interest that many losers desired to play over again to prove their superiority over a competitor. Time, however, was too short to permit this, as many had planned to return home on the afternoon trains. Collectively the conference was a huge success and each departing visitor voiced the sentiment that he had been well repaid for the visit and would live in anticipation of the next annual gathering.

### Among Those Present

Among those attending were: Sydney T. Jones, Hudson Valley Paper Company, Albany, N. Y.; J. E. Bradley, Bradley-Reese Company, Baltimore, Md.; H. W. Rowe, Dobler & Mudge, Baltimore, Md.; H. E. Waite and A. C. Hall, John Carter & Co., Boston, Mass.; W. F. McQuillen and W. B. Stevenson, A. Storrs & Bement Company, Boston, Mass.; William T. Sibley, Alling & Cory Company, Buffalo, N. Y.; Hobart J. Shanley, Hobart J. Shanley & Co., Inc., Burlington, Vt.; L. P. Sine, Messenger Paper Company, Chicago; G. R. Tolen, Midland Paper Company, Chicago; John A.

Church, Cincinnati Cordage and Paper Company, Cincinnati, Ohio; B. A. Judd, Petrequin Paper Company, Cleveland, Ohio; A. T. Nesbitt, Cincinnati Cordage and Paper Company, Dayton, Ohio; J. F. Miller, Chope-Stevens Paper Company, Detroit, Mich.; J. A. Donaldson and H. B. Prowell, Donaldson Paper Company, Harrisburg, Pa.; W. H. Rourke, Rourke-Eno Paper Company, Hartford, Conn.; C. K. Judd and P. M. Judd, Judd Paper Company, Holyoke, Mass.; F. O. Hanson, Plymouth Paper Company, Holyoke, Mass.; H. W. Mathewson, Paper Supply Company, Minneapolis, Minn.; Samuel Garner, J. E. Linde Paper Company, Newark, N. J.; G. A. Mathews, New Haven Paper Company, New Haven, Conn.; Max Greenebaum, Beekman Paper and Card Company, New York; Spencer Lathrop, Lasher & Lathrop, Inc., New York and Newark; B. E. Linde, Alfred Kinn, William Stedman and Joseph Lux, J. E. Linde Paper Company, New York; K. S. Warner, John F. Sarle Company, New York; Leon Beck and Andrew Simon, Charles Beck Company, Philadelphia, Pa.; A. R. Cobb, C. M. Rice Paper Company, Portland, Me.; L. R. M. Gardner and T. C. Gregory, R. I. Greene Paper Company, Providence, R. I.; C. Raymond Van Reed, Van Reed Paper Company, Reading, Pa.; Jos. McNulty, Megargee Brothers, Scranton, Pa.; Daniel P. Cole and F. Parker Holdridge, Eastern Paper and Supply Company, Springfield, Mass.; Charles Charnella, Paper House of New England, Springfield, Mass.; William R. Thacker, Thacker Craig Paper Company, Springfield, Mass.; Frank J. Wright, Acme Paper Company, St. Louis, Mo.; G. A. Manz, J. & F. B. Garrett Company, Syracuse, N. Y.; Chas. A. Esty, G. Blandy and E. P. Bement, Chas. A. Esty Paper Company, Worcester, Mass.; B. M. Anderson, Carpenter Paper Company, Omaha, Neb.; F. W. Wilson, Blake, Moffitt & Towne, New York; James Thayer, United States Envelope Company, Springfield, Mass.; Henry Emery and C. W. Townsend, United States Envelope Company, Holyoke, Mass.; L. D. Post, New York; L. A. Walden, New York; A. A. Tanyang, PAPER TRADE JOURNAL, New York; Brad Stephens, Boston, Mass.; I. B. Spafford, Spafford Company, Boston, Mass.

## News of the Boston Trade

[FROM OUR REGULAR CORRESPONDENT]

Boston, Mass., October 10, 1921.—W. H. Hatton, for several years salesmanager for the western part of Massachusetts for John Carter Company, Inc., resigned this week to assume managership of the Meals Printing Company of Gardiner, Mass.

Thomas W. Kitson, for the past 9 years with Carter, Rice & Co., has joined the John Carter Company force, taking Mr. W. Hatton's territory.

A. C. Hall and H. F. Waite, Treasurer and salesmanager respectively of the Carter house were among 60 representatives at the "Certificate Bond" conference held at the Crocker-McElwain offices in Holyoke this week. Delegates and distributors of "Certificate Bond" came from sections as far West as the Mississippi.

W. F. McQuillen, of A. Storrs & Bement Co., was chosen New England representative at this conference to serve on the Advisory Board, which will act as a committee to take up with the company all matters pertaining to the "Certificate Bond," in other words a mouthpiece for the distributors.

## E. Butterworth & Co. Incorporate

Boston, Mass., October 12, 1921.—One of the oldest houses in the country, with offices in United States and abroad, the E. Butterworth & Co., this week was incorporated under Massachusetts laws as the E. Butterworth & Co., Inc.

Charles H. Wood of Boston, 40 years with the Butterworth house is president and Lewis Jennings, for more than 20 years with Butterworth is treasurer.

William Dodge and Col. Edgar Smalley, both of Manchester, England, former chief executives of the old house are directors in the new corporation.

# WHALEN SULPHITE PULPS

Made from the SITKA SPRUCE of BRITISH COLUMBIA  
Noted for Fibre, Color and Strength

**SNOWWHITE  
BLEACHED  
SULPHITE**

**GLACIER  
EASY BLEACHING  
SULPHITE**

**SWAN  
STRONG  
SULPHITE**

As exclusive Sales Agents for all of the products of the WHALEN PULP & PAPER MILLS, LTD., in addition to stocks at the mills, we will carry large stocks of the above well-known brands in New York, thus insuring prompt deliveries.

Your inquiries addressed to any of our offices will bring prompt quotations by wire.

**CANADIAN ROBERT DOLLAR CO., Limited**  
VANCOUVER, B. C.

*U. S. ADDRESSES*

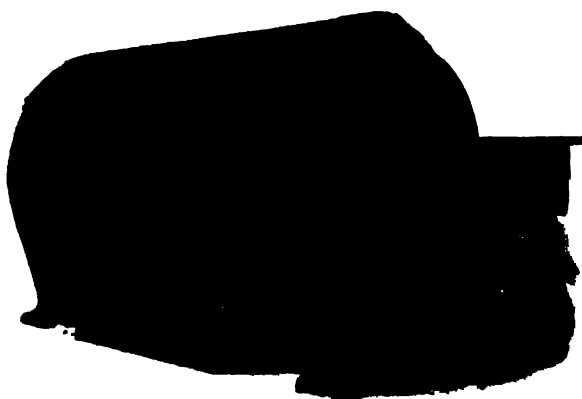
Robert Dollar Co., Robert Dollar Bldg., San Francisco.  
Robert Dollar Co., 15 Moore Street, New York, N. Y.  
Robert Dollar Co., Harris Trust Bldg., Chicago, Ill.  
Robert Dollar Co., L. C. Smith Bldg., Seattle, Wash.

*FOREIGN OFFICES*

Robert Dollar Co.,  
Shanghai, Hong Kong,  
Hankow, Tientsin,  
Ichang, Chungking, and  
Pekin, China; Kobe,  
Japan; Calcutta, India;  
Manila, P. I.; Singapore,  
S. S.

## "IMPCO" TAILING SCREENER FOR SCREENING GROUND WOOD TAILINGS

Very Low  
Power  
and  
Upkeep Expense



Delivers  
Rejections Free  
from Good  
Stock

ANOTHER UNIT OF OUR CLOSED SYSTEM FOR PULP SCREENING

WRITE FOR FULL DETAILS

CORRESPONDENCE A PLEASURE

**IMPROVED PAPER MACHINERY CO.**

**Nashua, N. H.**

**SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA**

# Editorial

Vol. LXXIII New York, October 13, 1921 No. 15  
FIFTIETH YEAR

## Forest Products Laboratory

The possibilities of helpful co-operation for paper and pulp manufacturers at the Forest Products Laboratory at Madison, Wis., was well brought out in some remarks by Sidney D. Wells, prominently connected with that institution, at the recent meeting of the Northwestern section of the American Pulp and Paper Mill Superintendents' Association at Appleton.

"The Forest Products Laboratory is at Madison," said Mr. Wells, "to serve your needs and as the margin between the cost of raw material and price of finished product becomes narrower the only alternative is to produce more product with the same or smaller amounts of raw material. This will involve painstaking work in studying where losses occur and how they may be avoided, and the superintendent with the responsibility of maximum production and the highest quality consistent therewith cannot devote his attention to these details without the danger of curtailment of production.

"The logical method of doing this is by delegating it to an organization such as ours whose object is to perform this particular function. An example of some work we have done along this line is the studies on the cause and prevention of decay in wood and pulp which was started through Dr. Kress's efforts, carried on with the support of the paper manufacturers, and encouraged by your sympathy. The work has led to what we believe are some very effective methods for reducing the loss. Another study much less in magnitude but of considerable interest and importance is that of the losses on the paper machine. I recently had an opportunity of studying such losses on one of the book and news machines of a mill in a neighboring state. In times past if 30 per cent of the material added to the beater ran down the river it did not cause very much worry because pulp was cheap. In fact, few attempts were made to ascertain where the loss occurred or what it was. The situation is now considerably different and the manager of the mill referred to wanted to know. I was there two weeks and measured the volume of water being wasted from the paper machine, the amount of fiber, clay, and soluble material therein and such other points as were related to the problem throughout a period of eight operating days. The figures obtained were very interesting and I shall give them briefly.

Fiber		To sewer			Unaccounted for
		In paper	Insol.	Sol.	
Sulphate	45				
Book stock	41				
Shavings	18½				
Groundwood	200				
	344½ tons	254 tons	38½ tons	6 tons	6 tons
Clay	41 tons	27 tons	14 tons	7 tons	1 ton
Alum size silicate	10¼ tons	4 tons	½ ton		
	356 tons	285 tons	53 tons	13 tons	5 tons

"It was found that even the fact that measurements were being made seemed to reduce the amount of loss and as a result of the study changes are being made which will effect very material savings. As I have intimated, the first step towards reduction of loss is to find out where it is and how much. It is then easy to

convince those directly in charge of operation and also the powers that be that possible inconvenience and a certain amount of expense is worth while.

"I have given a couple of instances to illustrate how our laboratory can serve and could give you many more. We are glad of the opportunity to serve wherever possible and also welcome and need your advice to keep us informed of the most vital problems and the benefits of your experience that we may always work within the realms of practicability. I trust we can continue to count on your co-operation with which I am sure we can render a great service."

Careful readers of the PAPER TRADE JOURNAL appreciate that the Forest Products Laboratory has already done much valuable work for the pulp and paper industry. As intimated by Mr. Wells, this work, however, could be very greatly increased if greater interest were manifested by the practical and technical men of the industry. Conditions are changing rapidly and there will be increasing need to study losses in the manufacturing of pulp and paper that until recently, perhaps, did not seem of very great importance.

Although handicapped by inadequate appropriations from Congress, the Laboratory at Madison is well equipped to co-operate in investigation work, and, as frequently stated, it will be glad to be of service whenever it can.

Those engaged in the pulp and paper field can best show their appreciation of this spirit of co-operation by taking greater advantage of it than they have heretofore.

## Pulpwood Prices Lower

The price of imported pulpwood continues to show a steady decline as indicated by the monthly summary of foreign commerce for August just issued by the Department of Commerce at Washington.

The average price per cord for the month was \$12.91 as compared with \$13.68 for July and \$13.34 for August a year ago.

The monthly average import price per pound of news print for August was \$0.452 as compared with \$0.491 for July and \$0.493 for August a year ago.

The monthly average import price of ground wood showed rather a surprising increase for August. The average price per ton for the month was \$25.34 as compared with \$19.43 for July and \$25.90 for August of last year.

The import price of unbleached chemical pulp, on the other hand, continued to decrease, the average price per ton for August being only \$66.55 as compared with \$72.21 for July and \$132.60 for August in 1920.

The import price of bleached chemical pulp also continued to decrease.

The average import price per ton of bleached pulp for August was \$91.85 as compared with \$107.18 for July and \$171.40 for August of last year.

The average export price of news print for August showed no change as compared with July, the price per pound being \$.05 for each month, but was decidedly lower than for August a year ago when the average price was \$.079.

The average export price per ton of wood pulp for August was \$55.85 as compared with \$41.10 for July and \$65.70 for August of last year.

## Say I. P. Co. Cannot Win Strike

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., October 10, 1921.—"If you men hang together the International Paper Company can never win this strike," said J. T. Carey, president of the International Brotherhood of Papermakers, in an address here last Wednesday night at City Hall before a mass meeting of International Paper Company strikers. J. J. McEntee, president of the Machinists' Brotherhood, accompanied Mr. Carey on the trip. "It has already cost the company hundreds of thousands of dollars to make this fight, and a fortune must be squandered yet, unless the officers of the company yield."

Both speakers urged the men to stand firm. "Surrender on the part of the men now will mean a return to conditions in the mills approaching serfdom, with a working condition that has not obtained in the paper industry for years," said Mr. McEntee.

"The depression in the paper industry was brought about by the election of President Harding," said Mr. Carey, who delved into a little politics, "and this is responsible for the long idleness of mills. The year 1920 was the most successful the industry ever had with prices high in all grades of paper, but immediately after election the slump came. The people wanted a change and they got it. Within 48 hours after it was known that Mr. Harding was elected the price of paper broke short."

Mr. Carey reviewed the history of negotiations with the manufacturers, leading up to the arbitration and the break with the International. He read several statements by President Dodge. He asserted that statements of improved production were false.

For the purpose of stimulating the sleeping interest of local strikers he stated that rumors were afloat at Glens Falls that the company was planning to close the Corinth mill and bring the employees to Watertown, thinking paper could be made here cheaper. "I believe the company has not tried to open shop here because it realized that a fair show would be accorded here," said Mr. Carey. "A couple of our best friends are in public office here, and they realize that District Attorney T. A. Hendricks and Judge John Conboy would give us fair treatment. They administer the law with justice to all."

"There are 7,500 members of the various unions, and not more than 30 have broken away and returned to work, outside of the Turner Falls mill. The company is either misstating facts or deliberately committing perjury when it claims it can get plenty of men and at the same time asking for injunctions against its former workmen. If the I. P. wins it will mean a return to the two tour system."

Mr. McEntee spoke on the paper mill strike and on labor conditions in general.

## Making Leafing Land Work Is Appeal of Paper Makers

"An idle acre is as much an economic waste as an idle working man and the nation needs work today."

With this appeal the American Paper and Pulp Association is sending to its membership a review of the work of its Forestry Committee in advance of the coming Fall Business Conference at Chicago, October 31 to November 4. After telling of the actual extensive reforestation work being done by paper manufacturers, particularly in the East, the Association reviews the whole subject of forestry by saying:

"The paper industry is an active participant in the campaign to restock 81,000,000 acres of idle forest land. The wood from so large an area is more than will be needed by the paper industry, even though the acres now idle become productive. The nation needs work today not only by the human element in industry, but by the other elements entering into industry and business. It is inconceivable that this progressive and aggressive country of ours can allow 81,000,000 acres of land to loaf while the product pro-

curable from this land is needed. The Snell-McCormick bill now in Congress will be given a full and free hearing by Congressional Committees, probably in January.

"The last six months has seen national recognition given to the paper industry for its leadership in the campaign for forestry legislation. While the paper industry uses less than 4 per cent of the total lumber cut of the country, there is good reason to anticipate that before another year national legislation will have been enacted, founded on the principle of federal co-operation with the states and private owners, without federal control of private operations."

The foresters of the paper industry will discuss practical forestry at the meeting of the Woodlands Section during the Fall Conference week at Chicago, their session being set for Wednesday, November 2. Twenty sectional meetings will be held during the week, with the main meeting of the American Paper and Pulp Association, Thursday, November 3.

## Situation Better in Sweden

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 11, 1921.—The Department of Commerce is in receipt of a report from the American Consul General at Stockholm, Sweden, regarding the wood pulp market there. The report is as follows:

"The long continued stagnation in the wood pulp trade has given place to a certain activity, for the market seems to have recovered some of its tone, a feeling of optimism being apparent. Prices have dropped since the dissolution of the selling combine and in many quarters it is believed that they have reached rock bottom. The majority of the mills are quoting: Easy bleaching sulphite, 310-340 kroner per ton; strong sulphite, 280-300 kroner per ton; easy bleaching sulphite, 280-300 kroner per ton, and machine pulp, 250-275 kroner per ton."

"All of the above f.o.b. Baltic ports"

"The records of this Consulate General bear witness to the renewed activity in the pulp trade. In the month of June there were certified invoices covering shipments of 6,400 bales and 1,035 tons of wood pulp to the United States value at 1,479,577 kroner (\$331,744 at average rate of exchange for that month) and in the month of July the invoices represented shipments of 5,858 bales and 15,130 tons of wood pulp, valued at 2,753,365 kroner (\$579,677) at the average rate of exchange for that month."

"There is but little doing, however, in mechanical pulp. The Swedish paper mills have been making offers but their offers were such as to spell a great loss to the manufacturers considering the high prices of pulp wood."

## Starting More Machines at Holyoke

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, MASS., October 8, 1921.—Adam Wilkinson, labor commissioner of the American Writing Paper Company of this city, today stated that more machines of the company would be in operation next week than during any week so far this year. Paper manufacturers of this city today stated that more business is coming into the local mills than in past months. While the orders now being received are not exactly large ones they show a substantial increase over orders of the past months.

## G. A. Robertson Plant at Hinsdale Burned

[FROM OUR REGULAR CORRESPONDENT.]

HINSDALE, N. H., October 10, 1921.—The paper mill owned by the G. A. Robertson Company was burned last week at a loss of \$100,000. The plant was destroyed in 40 minutes. The Robertson paper mill was once located in Holyoke, Mass. In 1883 the plant was moved to Hinsdale, the present owners being descendants of Frank W. and E. C. Robertson, who organized the mill in Holyoke. The insurance on the mill is largely carried by a Holyoke company.

# PRACTICAL QUESTIONS AND ANSWERS FOR MILL MEN

A Department for the Solution of the Troubles, Large and Small, That Are Encountered by the Workers in the Mills in the Course of Their Duties in Making Paper and Pulp — All Mill Men Are Invited to Send in Both Questions and Answers—A Free Exchange of Ideas Is Desired—By Active Co-operation This Department Can Be Made a General Clearing House for Information in Regard to Practical Paper Making.

## Changing Board Weight to Ream Weight

**QUESTION No 2552**—Will you please inform me through the pages of the PAPER TRADE JOURNAL how to change board weight to ream weight and ream weight to board weight?

**ANSWER No 2552.** June 1, 1920, the Eastern Paperboard Manufacturers' Association published a booklet giving the gauge and ream weight tables to be used. There are several definitions and rules for figuring box board which are given here:

**Bundle**—A bundle of boxboard is a standard package of same weighing 50 pounds.

**Number**—The "number" of board indicates the number of sheets, size 26 x 38, in a bundle weighing 50 pounds.

**Count**—By "count" is meant the number of sheets of any size in a bundle of 50 pounds.

**Regular Size**—The regular or Standard Size of all grades of board, except Patent Coated and Solid Manila, adopted for the United States is 26 x 38, containing 988 square inches.

The Regular or Standard Size of Patent Coated and Solid Manila Board is 24 x 36, containing 864 square inches.

**Regular Number**—The regular number indicates the number of sheets, 26 x 38 in size, in a bundle of 50 pounds.

**To Determine Count of Odd Size Sheets**—If not sure of the regular number of the board desired, determine same by gauge list. Divide the number of square inches in a bundle of the regular number desired, by the square inches in the special size sheet desired, and the result is the "count" or "number" of the special size desired.

**To Determine Regular Number of Any Special Size**—Knowing the count of the special size, multiply the square inches in special size sheet by the count, the result being the square inches in the bundle. Divide the square inches of the special size by the square inches in a regular sheet (26 x 38—988), and the result is the "regular number."

Below is gauge list and ream weight table for  
Patent coated—chip back  
Patent coated—news back  
Patent coated—news center Manila back  
Patent coated—solid Manila back  
Patent coated—blue back  
Solid Manila board

Gauge	Basis 500 sheets		Basis 500 sheets	
	24 x 36 (864 sq. in.)	Lbs.	25 x 40 (1,000 sq. in.)	Lbs.
.011		154		178
.012		168		194
.013		182		210.60
.014		189		217.60
.015		195		225.69
.016		208		240.70
.017		221		255.78
.018		230		266.20
.019		238		274.88
.020		245		283.56
.021		257		291.66
.022		264		305.55
.023		276		319.44
.024		288		333.33
.025		300		347.21
.026		312		361.10
.027		324		374.99

.018  
.029  
.030

336  
348  
360

388.88  
402.77  
416.65

**Rules for Figuring Weight of Odd Sizes**—Use the decimal table above, which is on the basis of 1,000 sq. in. and is accurate. First find the square inches in the sheet wanted and multiply same by the decimal in 25 x 40 table above, then point off decimals and you will have the correct weight of the odd size per ream.

**Example**—22 x 34, — 018 Patent Coated 22 x 34 = 748 sq. in.  
x .26620 = 199 pounds per ream.

If you had an order which read 26 x 38—25 you would have a bundle of twenty five sheets weighing fifty pounds. To change this to ream weight you would have to divide 500 (the number of sheets in a ream) by 25 and multiply by 50 which would make the ream weigh 1,000 pounds.

## Good Price Obtained for Limits

What is considered a good price was received by the Department of Lands and Forests in Ontario for the right to cut timber and pulpwood in Asking township in the Temagami forest reserve. For the portion west of the T. & N. O. Railway, where red and white pine abound, the highest bidder was Quincy Adams, of Orillia, who offered \$25.10 dues and bonus, per thousand feet, board measure. In the east section, William Milne & Sons, of North Bay, were the highest offering for the white pine \$20.40, bonus and dues, red pine \$18.10, spruce, \$11; jack pine, \$7.50; railway ties, 50 cents, and fuel wood, 25 cents per cord.

## Gibbs-Brower Announces New Department

The Gibbs-Brower Company, manufacturers, 261 Broadway, New York, and 181 Quincy street, Chicago, has organized an engineering department to enable it to take care of needs for special machinery.

This department will investigate any problem of manufacturing of machinery and give a report without obligation to the inquirer. It will then invent, design and build for suitable equipment or give service in any other way required. For this work the company associated with it a consulting engineer of high standing and broad experience in paper-working machine and paper products.

## To Confer In Holyoke About Unemployment

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., October 10, 1921.—A conference of paper mill and other manufacturers of this city has been called for the afternoon of the 13th to consider the local unemployment situation. The paper mills are in the poorest condition as far as unemployment is considered. The paper converters are running in fair condition. The number of unemployed in this city is estimated to be between 1,500 and 2,000. City Solicitor Eugene A. Lynch will represent Holyoke at the state non-employment conference, which will be held in Boston on the 10th.

---

---

**Now Out and All Advance Orders Filled**

---

---

**The New 1922 Edition**  
of  
**Lockwood's Directory**

---

---

of the  
**Paper and Allied Trades**

An encyclopedia of the Paper and Pulp Industry and Allied lines, thoroughly revised and up-to-date. Its contents include complete lists of

PAPER AND PULP MILLS, ALSO CLASSIFICATION OF THEIR PRODUCTS, MAKERS OF PAPER SPECIALTIES, GENERAL PAPER MERCHANTS, PULP, RAG AND PAPER STOCK DEALERS, CONVERTERS OF PAPER, MILL OFFICIALS AND THEIR CONNECTIONS, WATER-MARKS, BRANDS, STATISTICAL INFORMATION, TRADE ASSOCIATIONS AND AUTHENTIC LIST OF WHOLESALE AND RETAIL STATIONERS.

**Price \$7.00**

**Express Prepaid**

*Send in Your Order Now and Reap Prompt Benefit*

---

---

**Lockwood Trade Journal Co., Inc.**  
**10 East 39th St., New York**

## CURRENT PAPER TRADE LITERATURE

(Continued from page 42)

cellulose and similar compounds are colloidal absorption entities which do not obey the laws of simple chemical compounds, and these views are at the bottom of new processes for the digestion of wood by step-wise processes and by the successive use of specific solvents and chemical reagents. One group of investigators suggests the alternate action of alkalis and acids and in this way more dilute solutions can be used and better cellulose results and larger yields are obtained. Step-wise digestion with dilute and then with concentrated solutions has been tried, and also the digestion of wood with mild reagents, with either a preliminary or simultaneous treatment with hydrolyzing reagents. Both organic and inorganic reagents have been used. Fifteen per cent of the impurities in pulp have been removed by treating the pulp with enzymes; acid chlorides have also been employed, as well as oxidizing reagents, as hydrogen peroxide, oxygen and air. Mention is made of bagasse as a source of fibre, as well as of a by-product, which may have some value as a foodstuff for cattle. In the preparation of fibre for textile purposes, fibres of less than 10 mm length are useless, and the fibre must be of uniform length. Consequently, the digestion process must be carefully carried out and a mild treatment is necessary. Mention is made of the impregnation of wood with dilute sulphuric acid. The wood retains the acid, but the bast of the wood may be freed from the acid by washing and is not injured. A process which may be applied to the linen industry, in place of the present strong alkaline treatment may be beneficial. Many plants, as hemp, contain only a small percentage of bast fibre suitable for spinning, but a large proportion of fibres fitted for papermaking. In some instances, the short fibres have been separated from the long. H. E. W.

**Thorne Barking System.**—*Pulp and Paper*, xix, 174-6 (Feb. 10, 1921). The barker consists essentially of three trough-shaped pockets made of steel plate. In the bottom of the pockets are slots through which the wings of the double-ended cams act on the logs to give them a rolling and rubbing action on each other which effectively removes the bark. A heavy spray of water is played on the logs in the pockets, which washes the loose bark out of the machine through the cam slots into troughs below which carry it away. By feeding at the normal capacity of the machine the percentage of overbarked logs is negligible, and those which are discharged before being fully barked are dropped through a gap in the conveyor carrying them from the barkers and returned for another passage through the machine. The machine was developed with the following ends in view: (1) to eliminate as far as possible manual handling of the logs from the time they are placed on the haul up until they are delivered to the shippers, (2) to abolish slashing and avoid the needless loss in sawdust, (3) to bark the logs clean without loss of pulpwood and at the same time avoid brooming the ends, (4) to stock-pile the logs in such a way that the maximum drying effect could be obtained. A feature of considerable importance is the exceptionally low maintenance cost on the machine. (This system is covered by Can. patent No. 201,846 July 13, 1920. Abs.) A. P. C.

**Liquid Chlorine for Bleaching.**—L. N. Goebel, *Paper*, xxvii, 2 (March 16, 1921). Description of the containers used for the transportation of liquid chlorine and of the equipment used for the preparation of bleaching solutions from liquid chlorine. A. P. C.

**Accessory for News Print Rewinders and Calenders.**—E. Marguet, *Papeterie*, xlii, 691-3 (Aug. 10, 1920), *Paper*, xxviii, 2 (March 16, 1921). Translation by A. Papineau-Couture. A. P. C.

**Cotton Linters for Papermaking.**—H. A. Lindenberg, *Paper*, xxviii, 2 (March 16, 1921). Outline of the future outlook for cotton linters in the paper manufacturing field, with special reference to their utilization for the manufacture of bond papers, roofing felt, and fiber board. A. P. C.

**Planting for Pulp and Lumber.**—*Pulp and Paper*, xix, 19 (Feb. 17, 1921). Brief description of the planting of loblolly, old field, and longleaf pines seed by the Great Southern Lumber Company on a 2,800 acre tract of cutover land. A. P. C.

**Canadian Woodlands Section.**—*Pulp and Paper*, xix, 209-1 (Feb. 24, 1921). An account of the meeting held in Montreal January 19, 1921, including address by O. M. Porter, representative of the American Woodlands Section, and papers by G. H. Anson on the organization of a woods experiment station, and by G. C. Piche (chief forester of the Province of Quebec) on the establishment of a forest rangers' school. A. P. C.

**Chemical Reactions in Sizing Paper.**—W. E. Byron Baker, *Pulp and Paper*, xix, 215-6 (Feb. 24, 1921). See *Pulp and Paper*, xix, K-10 (April 7, 1921). A. P. C.

**Tax or Embargo on Canadian Pulpwood.**—Frank J. D. Barnum, *Pulp and Paper*, xix (March 3, 1921). A "partial picture of destruction" wrought by the budworm and fires in Quebec and New Brunswick, with a discussion of the resulting imminent shortage of pulpwood to show the necessity of the government's putting a heavy export tax or embargo on soft land wood. A. P. C.

**Electrical Association Discusses Paper Machine Drive.**—*Pulp and Paper*, xix, 247-8 (March 3, 1921). Brief outline of paper by E. G. Warburton on the Harland Speed Inter Lock as applied to paper machine. (Cf. *Pulp and Paper*, xix, 50-64 Jan. 2, 1921) at the meeting of the St. Maurice Valley branch of the Canadian Electrical Association, Feb. 25, 1921, and of the ensuing discussion. A. P. C.

**Fitting the Foreman for His Work.**—*Pulp and Paper*, xix, 265-6 (March 10, 1921). Brief outline of the importance of training the foreman in the executive duties of his position and of the courses given by the Business Training Corporation of New York to this end, together with a few examples of what such training has actually accomplished in the case of foremen in the paper industry. A. P. C.

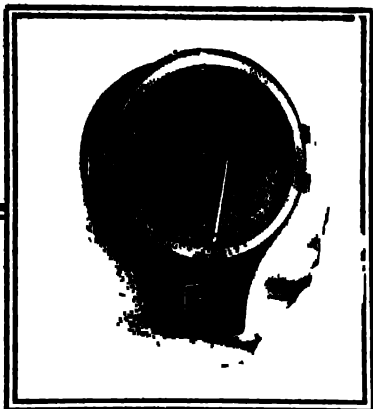
**Industrial Housing.**—*Pulp and Paper*, xix, 239-42 (March 3, 1921). Hints on the designing and construction of houses for pulp and paper mill workers, when it is advisable or necessary for the company to erect them. A. P. C.

**Electrolytic Bleach in India.**—R. Sitarama Rao, *Pulp and Paper*, 276 (March 10, 1921). Brief analysis of the possibilities of making electrolytic bleach in various parts of India. A. P. C.

**Alcohol and Fuel from Sulphite Waste Liquor.**—N. E. Clementson, representative in Canada and the United States for A. B. Ethyl, Stockholm, Sweden, *Pulp and Paper*, xix, 317-2 (March 24, 1921). Description of the new methods of the Ethyl company for the recovery of alcohol and solid fuel from waste sulphite liquors, of the extent to which the process is used in Europe and America, and of the uses to which the alcohol can be put. Comparative analytical data are given to show that the quality of sulphite spirits is equal to that of grain or potato alcohol. The cost of production in a 70-ton sulphite mill would be 21.4 cent per gallon of 95 per cent alcohol and \$5.13 for an amount of sulphite "coal" having a heating value equal to one ton of the best steam coal (6,500 kg. Cal.). A. P. C.

**Conservation of Timber in British Columbia.**—R. W. Hibbertson, *Pulp and Paper*, xix, 325-7 (March 24, 1921). An analysis of the timber supply of B. C., showing the danger of its exhaustion in a relatively early future, and of the urgent necessity of conservation and of adopting less wasteful methods of logging. A. P. C.

**Safe Storage of Coal.**—H. H. Stock, *Paper*, xxviii, 3 (March 23, 1921). Hints on the proper methods of storing coal as given in the U. S. Bur. of Mines Technical Paper 235. A. P. C.



## CONFIDENCE

Fifteen years and more is not an unusual length of service for a Bristol's Recording Instrument. In many industrial plants there may be found recorders which have been in constant use for this length of time. We are proud of these "old recorders"—they stand for just the sincerity and reliability we have endeavored to put into them.

### Time and Service Tested

TRADE MARK  
**BRISTOL'S**  
REG U S PAT OFFICE

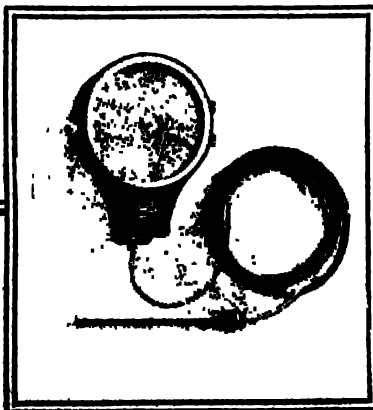
### Recording Instruments

have earned the confidence which could not be gained otherwise. They have proved beyond any doubt that the performance in service is all and more than we claim.

The ever-growing demand for recording instruments is shown by the fact that a little over thirty years ago the only recording instrument was the pressure gauge, while now our line includes Recording Instruments for Pressure, Vacuum, Temperature, Electricity, Time, Motion, Speed, Humidity, etc.

*Get copy of Information Bulletin 303 telling about this line of recorders*

**THE BRISTOL COMPANY**  
**WATERBURY, CONN.**



## Samuel M. Green Company Engineers

*Designers and Constructors of*  
**PULP and PAPER PLANTS, STEAM  
and HYDRAULIC POWER PLANTS**

*Investigation and Reports*  
**Chlorine and Bleach Specialists**

We design, construct and put in operation complete Bleach Plants and Electrolytic Plants for chlorine and caustic soda, using the Nelson Cell, which produces more chlorine and caustic soda per dollar than any other cell. Plants are simple and easily operated.

### Recent Contracts

Riordan Company, Limited—Temiskaming, Canada.  
Toronto Paper Mfg. Company, Limited—Cornwall, Ont.  
Diesen Wood Company—Wiborg, Finland.  
Iggesunds Cellulose Fabriker—Iggesund, Sweden.  
The Kellner Partington Paper Pulp Co.—Sarpsborg, Norway  
Titagur Paper Mills Co., Ltd.—Bengal, India.  
Eaton, Crane & Pike Co.—Pittsfield, Mass.  
Palulah Paper Co.—Fitchburg, Mass.  
Hampshire Paper Co.—South Hadley Falls, Mass.

*Write Us for Data*

**Samuel M. Green Company**  
**ENGINEERS**

Springfield,



Mass., U. S. A.

# HEMP WOOD AS A PAPERMAKING MATERIAL

ABSTRACTED BY C. J. WEST

If the composition of hemp wood as reported by Schwalbe and Becker in *Z. angew. Chem.* 32, 127 (1919) is correct, it should be a very promising raw material for paper mills. They reported a surprisingly high content of pure cellulose, namely, 51.7 per cent, while Heuser and Haug (*Z. angew. Chem.* 31, 99, 103, 166, 172 (1918) found only 43 per cent for the cellulose content of straw. Since straw has lately become an important raw material for the manufacture of pulp, it must be supposed that hemp wood, because of its higher cellulose content, would be even more suitable for this purpose.

Because of the importance of the question, B. Rassow and Alfred Zschenderlein (*Z. angew. Chem.* 34, 204-206 (1921) have re-investigated the question of the composition of wood from hemp. The material used in the investigation consisted, first, of the product as obtained in the ordinary process of retting (from the Deutschen Hanfbaugesellschaft), and second, of a product prepared by the method of Kraus (*Z. angew. Chem.* 32, 25, 160, 326; 33, 102) in which tenth normal sodium bicarbonate solution is used.

Kraus' method (the "Sicherheitsroste," as Kraus calls it) for the digestion of the bast fibers is readily applicable to hemp. The bast fibers dissolve completely in from three to three and a half days when the air-dry stalks are treated with a tenth normal sodium bicarbonate solution at 35 to 37° C and the resulting product shaken with hot water.

The first step in determining the suitability of the hemp wood for pulp manufacture was a study of the chemical composition of the two products. Schwalbe's scheme of analysis (*Z. angew. Chem.* 31, 50, 193, 32, 125) was used, the results were as follows:

Table I—Composition of Hemp Wood Shavings

	Hemp prepared by retting		Hemp prepared by Kraus' method		Schwalbe's results	
	Air-dry	Water-free	Air-dry	Water-free	Air-dry	Water-free
Water	10.52		8.86		12.59	
Ash	1.15	1.28	1.39	1.51	1.05	1.20
Fat and wax	2.55	2.85	3.88	4.26	1.96	2.33
Purified	12.70	14.18	13.09	14.37	11.39	13.03
Pentosans	21.63	24.16	22.31	24.47	19.43	22.15
Crude cellulose	46.63	52.09	47.51	52.11	62.39	71.38
Per cent of pentosan	22.12		22.41		27.57	
Pure cellulose	36.32	40.57	36.86	40.43	45.19	51.70
Lignin	20.80	23.34	20.71	22.08	26.34	30.13

The figures in the last two columns are the results obtained by Schwalbe and Becker. It must be remembered that these values cannot be compared in the same way that results from inorganic analysis are compared, since the methods employed do not have the same degree of precision.

The two samples analyzed by Rassow and Zschenderlein have practically the same composition. This is of great practical importance, since it indicates that the composition is independent of the method of preparation. Hemp wood resembles ordinary wood in composition, as shown by the figures obtained by Schwalbe and Becker (*Z. angew. Chem.* 32, 230) and König and Becker (*Z. angew. Chem.* 32, 157). It resembles in particular the deciduous trees, which is seen by examining the values for pentosans and lignin, the two values which are characteristic for the difference between deciduous and coniferous trees.

Comparison of the values in the above table shows that the figures obtained by Schwalbe for crude cellulose, cellulose pentosans and pure cellulose vary considerably from those reported by Rassow and Zschenderlein. Even though the cellulose determination is not a very exact one, this fact can scarcely explain the difference between the two values for crude cellulose: 52.09 and 71.38 per cent. In attempting to explain these differences, the various methods for determining cellulose were compared with each other. Approximately the same results were found when vary-

ing amounts of chlorine and different methods of washing were used. The supposition that Schwalbe and Becker used an entirely different material was ruled out by analyzing some of the original material which they used, and obtaining results comparable with the lower ones here reported.

A comparison of the figures reported by Schwalbe and Becker for various woods with those of other investigators, such as König and Becker or Heuser and Sieber (*Z. angew. Chem.*, 26, 801) showed that, while a part of the numbers agreed fairly well, the values for crude cellulose, cellulose pentosans and pure cellulose were consistently higher. The only explanation of this is that the crude cellulose of Schwalbe and Becker is not completely chlorinated and therefore contains considerable amounts of lignin.

Three experiments were carried out in order to determine the influence of the velocity of the chlorine stream: (1) 1 bubble in 1 second, (2) 1/2 bubbles per second, and (3) a lively stream. The method of Cross and Bevan as modified by Heuser and Haug was used, in which the products formed during the chlorination are washed out with 1 per cent sodium hydroxide. Hydrochloric acid is formed in the chlorination process, which, according to Heuser and Sieber, is a measure of the reactivity of the chlorine. The chlorinated product is washed with warm water (not higher than 30° C) until the filtrate is chlorine free. The combined filtrate is warmed carefully to drive off free chlorine, and the solution of hydrochloric acid made up to volume and titrated with tenth normal sodium hydroxide. The results show that the yield of crude and pure cellulose is the same, but that the course of the reaction depends upon the velocity of the chlorine stream.

Table II

	Chlorine stream I	II	III
First chlorination	5.89	8.76	11.74
Second "	4.17	6.05	4.27
Third "	3.64	0.57	0.14
Fourth "	2.08	0.22	0.12
Total	15.78%	15.62%	16.32%

These results indicate that, in order to prepare a lignin-free crude cellulose, the fourth chlorination is necessary. They also show that even by the use of a rapid chlorine stream, as in III, there is little if any oxycellulose formed, since Heuser and Haug have shown that the amount of hydrochloric acid formed increases with the formation of oxycellulose. On the other hand, three chlorinations are not sufficient, since the results show that in 1.208 per cent hydrochloric acid is formed on the fourth chlorination, a proof that the product still contained lignin. A fifth chlorination is not necessary because the product from the fourth dissolves to a clear solution in concentrated sulphuric acid.

The determination of crude cellulose in hemp wood, as well as in other woods, straw, flax, etc.—since these all have a similar composition—requires four chlorination periods of half an hour each, using a gas stream of 1 to 2 drops per second. By this procedure it is certain that the crude cellulose contains no lignin, and at the same time, is free of oxycelluloses. One may also follow the course of the chlorination by the change in color of the cellulose material. As long as it contains lignin, it will have an orange color. Pure cellulose is not changed in color by the action of chlorine.

The second problem related to the method of washing the chlorinated product. Experiments were carried out with Heuser and Haug's method, using 1 per cent sodium hydroxide, and with Renker's method, in which sodium sulphite solution was used. The results indicated that slightly better results were obtained by

(Continued on page 48)

# HAMMERMILL

## BOND

### HAMMERMILL

### COVER

### HAMMERMILL



### SAFETY

### HAMMERMILL

### LEDGER

## HAMMERMILL PAPER CO.

### ERIE, PENNSYLVANIA

EASTERN OFFICE
291 BROADWAY
NEW YORK CITY

# “AMERICAN”

★★★★★★

PAPER MAKERS TWINE
TUBE ROPE

WALL PAPER TWINE
HAY ROPE

FINE AND COARSE POLISHED TWINES

“AMERICAN” BRAND MANILA ROPE

“AMERICAN” BRAND TRANSMISSION ROPE

The name “AMERICAN” as applied to cordage means “more value in every way.” Send for copy of our General Catalogue, Prices and samples. Address Department M.

*Largest Makers of Commercial Twines and Rope in the World*

## AMERICAN MANUFACTURING CO.

NOBLE AND WEST STREETS, BROOKLYN, NEW YORK CITY

# CORDAGE

## Recent Incorporations

**ALPHA PAPER PRODUCTS CORP.**, Brooklyn, New York Capital, \$5,000 Incorporators, M. Hoosack, W. G. Golden; attorney, F. D. McGarey, 51 Chambers street

**CELLULOSE MANUFACTURING COMPANY**, Delaware Capital, \$50,000 Attorney, Corporation Trust Company of America, Wilmington

**PAPER AND PULP SALES, INC.**, Portland, Maine Capital stock, \$10,000, all common, nothing paid in, par value, \$10, shares subscribed, 3 President, Anjelo J. Urbano, Portland, treasurer, B. L. Sederquest, Portland, clerk, Albert E. Anderson, Portland, directors, Anjelo J. Urbano, B. L. Sederquest and Joseph A. Connellan, all of Portland

### Paper Mill Improvements at Middletown

DAYTON, Ohio, October 10, 1921 -The Paul A. Sorg Paper Company and the W. B. Oglesby Paper Company of Middletown are improving the land in the immediate vicinity of their plants with a view of making extensions to their mills in the future.

The companies mentioned are filling in eleven acres of land lying just west of the two mills. The hydraulic tail race is being arched over with immense concrete and steel arches preparatory to filling the lowlands to take care of future improvements. Just when these extensions will be made has not been definitely determined but that the companies are going to a heavy expense at this time to improve the large tract is significant.

It is one of the largest concrete jobs undertaken in Middletown for a long time and already is well advanced. The hydraulic race is being covered for a distance of approximately two hundred feet extending west from the Oglesby Paper Company's plant fifty feet and thence to the south, joining with another hydraulic race which leads to the Miami river. The concrete structure soon will be completed and the arches already have been poured. A large force of workmen is employed at the task by the J. R. Stevens Company, which has the contract.

On the west side of the Paul A. Sorg Paper Company's mill a new concrete coal pit has been constructed, and the concrete trestle work for an overhead coal switch already has been put in place. In a short time the Big Four switch will be run over the trestle, making possible the more economical handling of coal.

About two years ago the Sorg-Oglesby interests purchased an eleven-acre triangular tract of land in the river bottoms adjoining the ground owned by the Gardner-Harvey interests and now used as a ball park. The foresight of the officials of the paper mills envisaged the possibility of expansion, when new and greater mills would be erected along the banks of the Miami, and accordingly plans were laid to cover the tail race, and then fill on top of the arches, providing new land upon which the future plants might be built.

The bottom lands were allotted this summer to employees of the Sorg and Oglesby mills as garden plots and as such were intensively cultivated.

The Sorg-Oglesby mills have not operated at their full capacity this summer but at present are running on a substantial list of orders and are giving employment to the greater part of their regular forces. For several months there was sufficient work for one of the machines in the Sorg mill. The working day was changed from twelve to eight hours and three shifts were engaged, whereas only two were employed before. This gave all of the employees regular employment. Thus practically every employee was kept on the payroll until the present, and now that conditions are improving the situation is more encouraging. Employees have appreciated thoroughly the company's plan of affording work, particularly as workmen in other lines were idle for long periods.

Officials of both the Oglesby and Sorg mills are confident trade has taken a turn for the better. L. C. Anderson of the Oglesby

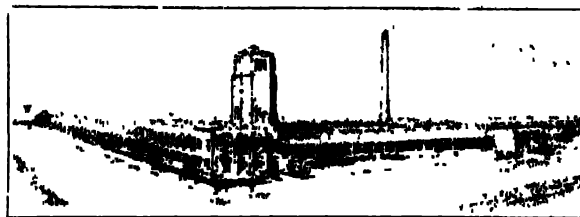
company expresses the opinion that the basic economic situation is improving and he is convinced that when business men understand that liquidation has run its course in all lines, there will be a resumption of buying on a large scale. Paper prices have steadily fallen along with steel and other commodities, and raw materials for paper making are approaching pre-war levels.

### New Home of Sewell-Clapp-Envelopes

Sewell-Clapp Envelopes, Chicago, makers and printers of business envelopes, will occupy their new building, an illustration of which is shown herewith, about November 1.

The new mill of Sewell-Clapp-Envelopes is of steel, concrete and pressed brick construction, situated at Belmont, Tripp and Kenosha avenues, Chicago, Ill. The size of the building is 209 feet by 376 feet.

A switch-track is provided from the tracks of the Chicago, Milwaukee & St. Paul Railroad, giving convenient transportation for both incoming and outgoing freight.



NEW PLANT OF SEWELL-CLAPP ENVELOPES

The effort has been made here to give some grace, symmetry and dignity to an industrial building. This feature of construction is the more appropriate because this envelope mill for forty-six years has been devoted exclusively to making to order and selling direct to consumers business envelopes for all uses, and in its own field is believed to be the largest and one of the oldest in the country.

The new mill is being equipped with the most modern machinery. All machines are on the ground floor, lighted from above, and the mill is fully equipped for handling a large number of individual orders for business envelopes in the most economical manner.

For the efficient and accurate control of the required operations, automatic machinery operated by individual electric motors and the most modern methods of organization, planning, routing and moving are employed.

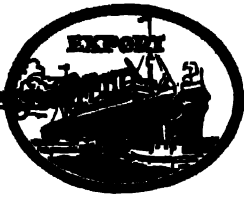
Many devices and methods have been invented especially for use in this mill and are exclusive. Sewell-Clapp-Envelopes since 1919 have been under the management of the following officers: President, M. D. Strong; vice president, H. T. Hyatt; treasurer, A. S. Cramer; secretary, John I. Allen.

### HEMP WOOD AS PAPERMAKING MATERIAL

(Continued from page 46)

the first method, and it is recommended that the method be used in all cellulose determinations.

Finally, experiments were undertaken to determine the value of the hemp wood for the preparation of pulp. Cooking with water gave a product which might find use as a kraft pulp. Digestion with sodium hydroxide and sulphite liquor gave a pulp of good appearance, but containing large amounts of pentosans. The soda pulp contained as high as 20 per cent, while sulphite pulp, depending upon the manner of cooking, may contain up to 10 per cent. The Ritter-Kellner method is the most suitable. Cooking for 12-13 hours at 140-150° with about 4 per cent sulphite liquor gives a pulp which, unbleached, contains 93-94 per cent crude cellulose, of which about 10 per cent is pentosans. It is not necessary to use a stronger sulphite liquor, since experiments showed that a 6 per cent liquor gave no better results.



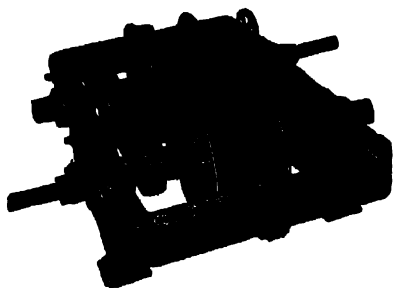
EVERYTHING IN

# PULP & PAPER

**J. F. PATTON CO., Inc.**

**33 West 42<sup>nd</sup> St.  
New York City**

(Cable address - Pulp.N.Y.)



*The Reeves*

**VARIABLE  
SPEED  
TRANSMISSION**

If it's a question of getting the exact speed on your Paper Machine to suit the condition of the paper being manufactured, then "THE REEVES" Variable Speed Transmission is exactly what you want.

The following are a few improvements and refinements incorporated in the manufacture of "THE REEVES" Transmission:

**TWO KEYS**, full length of the shaft between boxes, allowing the discs 100% bearing on the keys regardless of the position of the discs.

**LONGER DISC HUBS**

**LARGER ROLLER THRUST BEARINGS**, designed to fit over the long hub of the discs are used, permitting larger wearing surfaces, greater carrying capacity and longer life. Special High Duty Ball Bearings are furnished for main boxes if desired.

Write for Bulletin T-1040 and T-1055 for full particulars.

**REEVES PULLEY COMPANY**  
COLUMBUS, INDIANA



## ECONOMY

By Shepard "Aerial Railway"  
rehandling

Cost of rehandling pulp cut almost in half; five men released for more productive activity, greater efficiency and speed in doing the work—these are reasons why a Shepard Electric Hoist pays the Stevens and Thompson Paper Company, Greenwich, N. Y. The savings in handling one year's tonnage more than pays for the hoist which will continue to pay for itself many times.

This economy is appreciable and a vital factor in lowering production costs and is typical of the service rendered by "Shepards" wherever installed.

You, too, can cut costs by sending your loads via the "Aerial Railway" with a Shepard Electric Hoist; rehandling is done most efficiently—in the least time—at the lowest cost.

Shepard Engineers have planned efficient handling systems in many paper mills. They are at your service. You assume no obligation in inquiring.

Shepard builds Electric Hoists; Electric Travelling Cranes; Electric Transfer Cranes; Electric Winches; Electric Cargo handling equipment for docks and ships.

**SHEPARD ELECTRIC CRANE & HOIST CO.**

378 Schuyler Ave., Montour Falls, N. Y.

New York	Chicago	Philadelphia	Pittsburgh
Cleveland	San Francisco	Baltimore	New Orleans
Birmingham	Chattanooga	Detroit	Cincinnati
Buffalo	Melbourne	Montreal	London

Member Electric Hoist Manufacturers' Assn.

2214-S

# OUTLOOK FOR THE JAPANESE PAPER TRADE

OSAKA, Japan, September 6, 1921.—The recovery and development of the Japanese paper trade since the recent European War has been conspicuous; in some senses it can be said that the paper business has been aided by that war. Below is the list of comparisons prepared by the "Paper Manufacturer's Association" showing its development in these few years:

Year	Amount manufactured in one year	Percentage increased computed with preceding year
1914	327,000,000 lbs	10.7 per cent
1915	367,000,000 lbs	12.2 per cent
1916	405,000,000 lbs.	10.3 per cent
1917	455,000,000 lbs.	12.3 per cent
1918	499,000,000 lbs	9.7 per cent
1919	519,000,000 lbs.	4.0 per cent
1920	566,000,000 lbs	9.2 per cent

From the above, it may be seen that the amount manufactured in 1920 was an increase of 239,000,000 pounds over that of 1914, or an increase of about .98 per cent average annually. The amount of paper manufactured in Japan prior to the war could only fill the home demand. To export the surplus was entirely out of the question. Considering this, the present development is really astonishing. Below is the comparison of total import and export of paper as well as paper manufactures:

Year	Amount exported in one year Yen	Amount imported in one year Yen
1912	4,748,000.00	8,264,000.00
1913	5,434,000.00	8,417,000.00
1914	4,704,000.00	5,871,000.00
1915	6,351,000.00	3,811,000.00
1916	14,350,000.00	7,222,000.00
1917	22,118,000.00	5,619,000.00
1918	37,436,000.00	10,929,000.00
1919	36,513,000.00	21,400,000.00
1920	34,367,000.00	23,001,000.00

As far as exports are concerned, the year of 1918 was high mark after which there was a gradual decrease, especially noticeable in 1920. This was due to the following various reasons and causes:

- (1) A boycott movement against Japanese goods in China.
- (2) On account of an advancing market in Japan of paper in general, China got supplies from Sweden and Norway in large amount.
- (3) In consequence of rapid decline in price of paper in Japan, buyers at large held off purchasing in anticipation of further lowering. However, comparing the figures of 1920 with those of 1912, it still stands unparalleled.

The following is the comparison of paper manufactured in Japan in these years:

Description	Amount Manufactured In		
	1920 pounds	1919 pounds	1918 pounds
Printing paper (prime quality) ....	87,329,000	72,736,000	73,632,000
Printing paper (second quality) ...	83,073,000	81,985,000	80,072,000
News printing paper.....	254,777,000	229,761,000	229,761,000
Bank note paper ....	34,450,000	25,991,000	27,207,000
M. G. cap paper .....	15,119,000	10,275,000	10,860,000
Match paper .....	9,869,000	10,295,000	10,714,000
Colored paper .....	5,253,000	5,449,000	6,390,000
Packing paper .. ....	21,680,000	23,960,000	28,485,000

## Renshi and Karakami

(mostly used in China and Japan)			
Japan) ..	6,174,000	9,765,000	10,577,000
Others .....	46,180,000	46,919,000	43,983,000
Total .....	563,904,000	519,141,000	498,964,000

In the months of May and June of this year, the paper trade became more or less dull, the main cause for which was the monetary stringency then prevailing. At this time, with the completion of enlargement of plants, there was witnessed an increasing capacity for manufacture, causing an overproduction. This has been aggravated by the continuous arrival of foreign paper ordered prior to March of this year, with a consequent result of lowering prices of paper generally.

However, this depreciation was not at all rapid, which is not only attributable to the characteristic of paper itself but is also explained by the fact that there was not any speculation in paper. Paper dealers and publishers in general had their own stock of considerable amount due to the "boom" that prevailed in the past, but with the depression, they made a hard struggle to get rid of their holdings. Under such circumstances, the stock on hand of all dealers other than a few appointed agents who have special connection with paper manufacturers themselves went into consumption. Through this, paper manufacturers' sales became considerably less.

Hitherto other companies than paper mills have been striving hard in order to recover the market by shortening their operating hours while paper mills alone have been running in the usual way without reduction in working capacity at all. However, in December, 1920, paper mills simultaneously effected a reduction of 20 per cent and are continuing this now.

According to warehouse companies, stocks were put at 254,500 bales at the end of May 1920 and at 220,500 bales this May, which shows a decrease of about 13 per cent. This decrease of 13 per cent is not large. In this connection the following statistics are interesting:

Month	Quantity manufactured	Sales effected	difference
1921 January	40,381,000 lbs.	35,706,000 lbs.	4,675,000 lbs.
1921 February	40,975,000 lbs	37,162,000 lbs.	3,812,000 lbs.
1921 March	44,213,000 lbs	43,169,000 lbs.	1,044,000 lbs.
1921 April	44,218,000 lbs	43,181,000 lbs.	1,037,000 lbs.
1921 May	45,315,000 lbs.	49,965,000 lbs.	*4,649,000 lbs.
1921 June	44,501,000 lbs	43,159,000 lbs.	1,342,000 lbs.

\*1) denotes exceed of sales.

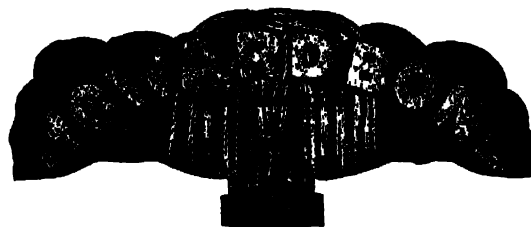
Dealers in general were in earnest in endeavoring to dispose of their stock on hand and when such holdings ran short, the real demand rushed into manufacturers which naturally resulted in an increase of sales, with consequent increase in volume of manufacture. However, it is a mistake to regard this as the positive tendency due to the real demand from consumers and users at large.

What is most important to our paper trade to-day is the appearance in our market of paper from Finland, etc. Finland, being seriously affected by the world's depression, is striving hard to find an outlet for an enormous overproduction, irrespective of the cost of production. To this end, European countries alone are not adequate to consume all their overproduction and it is natural that the balance is being directed to other parts of the world. In view of an adverse exchange, some are quoted in Japan at 10 to 20 per cent less than Japanese paper. It is a vital question to what extent the foreign made paper will be imported to Japan in the future and in what way this will affect our paper market.

The cost of production which is one of the most important items

(Continued on page 52)

Howard Bond



Howard Ledger

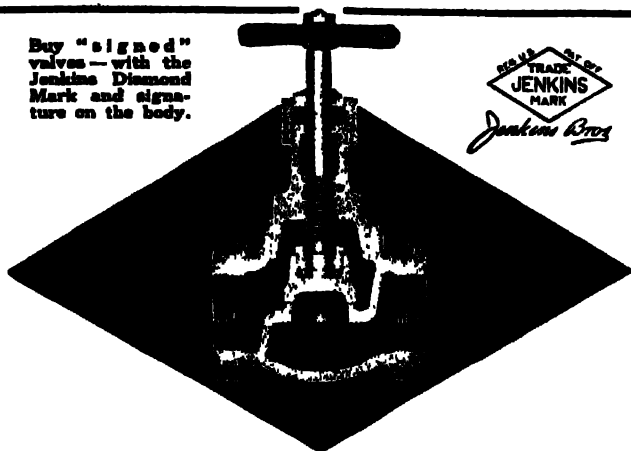
## "The Paper of Many Uses"

Manufactured by

THE HOWARD PAPER COMPANY,

Urbana, Ohio

Buy "signed" valves—with the Jenkins Diamond Mark and signature on the body.



### All Iron Valves

Suitable for a variety of purposes, including the handling of solutions of cyanide, saltpetre, caustic potash, dye-stuffs, and various acid and alkaline fluids. Regularly made with solid iron clapper, but when so ordered can be furnished with iron disc holder, and renewable Jenkins Disc.

Suitable for 175 pounds working pressure. Made globe, or angle with screwed bonnet or with yoke.

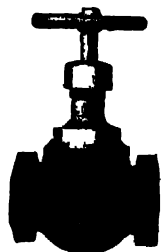


Fig. 75  
Globe Screwed

### JENKINS BROS.

New York Boston Philadelphia Chicago  
Montreal Havana London

FACTORIES Bridgeport, Conn.  
Elizabeth, N. J., Montreal, Canada

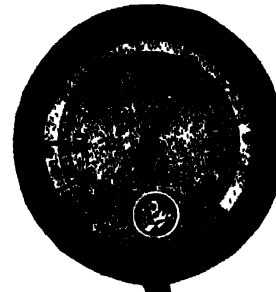
# Jenkins Valves

SINCE 1864

## The Old Made New



BEFORE



AFTER

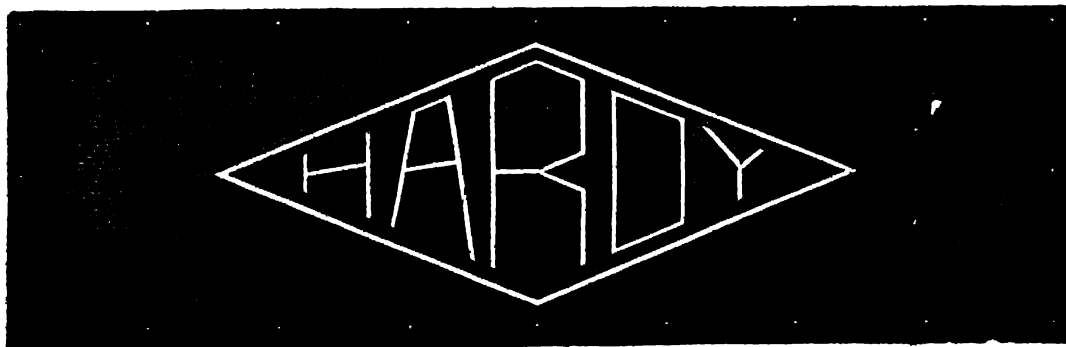
Write us stating number, size and make of your Gauges—We will give you price for repairing before they leave your office.

**REGARDLESS OF WHO MANUFACTURED YOUR GAUGES, Regardless of their CONDITION, we GUARANTEE to put them in First Class Working Condition**

Send your old gauge to be repaired—no charge—as a sample of the quality and delivery of our work. Immediate delivery of work that is uniformly excellent, at a satisfactory cost.

**The Manning Gauge Company, Inc.**  
77 Traverse Street, BOSTON, MASSACHUSETTS

# WILLIAM A. HARDY & SONS COMPANY, Fitchburg, Mass., U.S.A.



# SIZING PAPER WITH BAKELITE

TRANSLATED BY CLARENCE J. WEST

German Patent 338,395 (Holzverkohlungs-Industrie, Akt.-Ges. in Konstanz, Baden) claims that a paper with a high degree of sizing may be obtained by the use of Bakelite. The paper pulp is mixed with a small amount of the condensation product of formaldehyde with phenols in the form of an alkaline solution and is then treated with a precipitating agent, such as alum, which precipitates the material upon the fibers. One may proceed in such a way that the alkaline solution of phenol-formaldehyde rosin (the so-called Bakelite), containing from 10 to 50 grams of the phenol rosin per liter, is added to the paper pulp in the beater and the material precipitated upon the paper fibers in resinous form by the addition of alum solution, dilute acids, etc.

Very small amounts of the phenol rosin are needed for the sizing of paper by this method. Thus, satisfactory results were obtained by the addition of the alkaline solution in the proportion of 1 to 2 parts of the phenol rosin to 100 parts of paper pulp. One may even work with smaller proportions. In many cases the sizing was completed by the use of 2 to 3 per cent of the phenol rosin, but in no case was the use of more than 5 per cent necessary.

These phenol resins may also be used in connection with other sizing agents, such as natural rosin.

## The Use of Water Glass

According to German Patent 338,396, also granted to Holzverkohlungs-Industrie, Akt.-Ges. in Konstanz, Baden, it is possible to use water glass with good results in the sizing of paper if it is employed in connection with some other sizing agent which has the property, when precipitated upon the paper fibers, of binding the silicate. Bakelite appears to be such an agent.

\* In the preparation of this new sizing material, the following method may be used:

500 kilos of an alkaline solution of Bakelite, containing from 20 to 50 per cent of the solid synthetic rosin, are treated with a solution of 25 kilos of sodium sulphate in 5 kilos of water to prevent the undesirable absorption of oxygen. To this are then added, with vigorous stirring, 500 kilos of alkaline silicate about 40° Bé., which gives a clear solution. It may happen, however, that in the preparation of this mixture a rosin precipitates as thick clumps. This may be brought into solution by the addition of dilute alkali and if necessary, by warming for a short time to 80 or 100°. On the other hand, the mixture containing the precipitated rosin may be used as such, since the dilution necessary for its use as a paper size (from 2 to 5 per cent solution) will cause the solution of the rosin without any further treatment. The alkaline solution is incorporated with the paper pulp in such proportions that about 5 parts of the above mixture are used with 100 parts of paper pulp. In this, the active sizing agent is precipitated with aluminum sulphate or a similar precipitating agent.

In place of the above named condensation product of phenol, naphthol, etc., with aldehydes, one may use the alkaline solutions or suspensions of the condensation product of aldehydes with the compounds found in coal or wood tar in connection with water glass. The most suitable condensation products are those obtained by treating the tar with soda solution in order to remove acetic and other acid constituents and then condensing this residue in alkaline solution or suspension with formaldehyde.

## Claims for the Patent

The new sizing process may also be used with other sizing agents, such as rosin size.

The patent claims are:

1. A method for the sizing of paper in which the sizing is carried out by the use of water glass in the presence of alkaline solutions of condensation products of formaldehyde with phenols, naphthols, etc., or of similarly acting sizing agents which possess the property, when precipitated upon the paper fibers, of binding the water glass.

2. Sizing of paper as in 1, in which the sizing is carried out with water glass in the presence of condensation products, obtained from formaldehyde and alkaline solutions or suspensions of tar, or tar residues freed from acetic acid and other acid constituents.

3. Sizing of papers as in 1, in which the paper pulp is incorporated with an alkaline solution or suspension containing water glass in addition to condensation products of aldehydes with phenols, hydroxy-containing naphthalene compounds or similar sizing agents and these precipitated upon the paper fibers by the addition of aluminum sulphate or similar precipitating agents.

## I. P. Co. Gets Restraining Injunction at Wilder

WILDER, Md., October 7.—The International Paper Company has served a temporary injunction on the various unions of the paper industry of this place restraining their members from picketing, congregating near the company's mill, acts of violence or interference with or hindering the company from carrying on its business. A strike has been in force at the company's mill since May 1. A hearing on the injunction is scheduled for the 14th at Newfane.

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of PAPER TRADE JOURNAL, published weekly at New York, N. Y., for Oct. 1, 1921.—State of New York, County of New York. Before me, a notary public in and for the State and County aforesaid, personally appeared Leslie R. Palmer, who having been duly sworn according to law, depose and says that he is the business manager of the PAPER TRADE JOURNAL and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit: 1. That the names and addresses of the publisher, editor, managing editor, and business manager are:—Publisher, The Lockwood Trade Journal Co., Inc., 10 East 39th street, New York, N. Y.; editor, H. J. Berger, 10 East 39th street, New York, N. Y.; managing editor, H. J. Berger, 10 East 39th street, New York, N. Y.; business manager, Leslie R. Palmer, 10 East 39th street, New York, N. Y. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name, and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.) The Lockwood Trade Journal Co., Inc., 10 East 39th street, New York, N. Y.; Stockholders, Leslie R. Palmer, 10 East 39th street, New York, N. Y.; I. D. Maley, trustee of the Estate of Charles H. Jones, dead, Daytona, Fla.; J. D. Maley, guardian of Elizabeth Jocelyn and Kathryn Maley, Daytona, Fla.; Mrs. M. G. Duck, Daytona, Fla.; Dorothy Martyr Freeman, Bat Cave, N. C. 3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are:—There are none. 4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given, also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner, and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

LESLIE R. PALMER, Business Manager.

Sworn to and subscribed before me this 30th day of September, 1921.

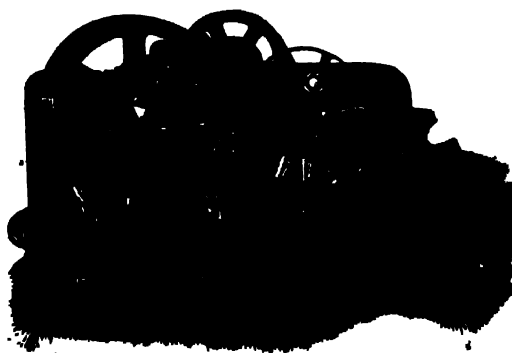
[SEAL]

ALFRED C. GROUTER,

(My commission expires March 30, 1922)

# Don't Use Your Beaters For Rag Cutters

Put in a  
**GIANT**  
and cut your stock  
thoroughly and evenly

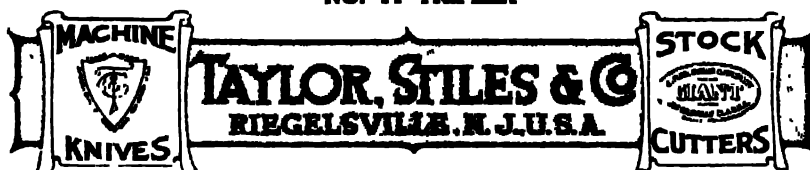


Capacity 2 Tons per  
hour

Weight 8500 lbs.

For Roofing and Felt  
Stock

NO. 11 TRIPLEX



Canadian Manufacturers Under Patents: WATEROUS ENGINE WORKS CO., Brantford, Ont., Can.  
I. MARX & CO., London, E. C., sole agents for the United Kingdom

## Increased Capacity Lower Cost Per Cord

THE

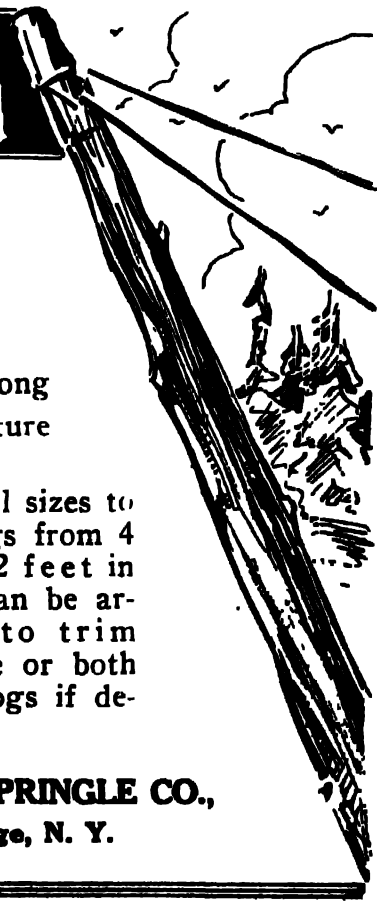
### Ryther Slasher

is the most efficient and the lowest cost method of reducing long logs to uniform short lengths suitable for further manufacture into pulp and paper.



Built in all sizes to handle logs from 4 feet to 32 feet in length. Can be arranged to trim either one or both ends of logs if desired.

**RYTHER & PRINGLE CO.,**  
Carthage, N. Y.



## New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,  
TUESDAY, October 11, 1921

Business conditions in the paper industry are slowly but surely improving, and while the trade has every reason to feel encouraged, it does not consider that normal times have by any means arrived and still looks ahead for better days. The end of a long period of reconstruction is now felt to be approaching. This, together with the usual enlivening of business at this time of year, is largely responsible for the present strong undertone manifested throughout the paper industry. For most of the commodities which have a relation to the paper trade there is a growing demand. Small lots appear to be entirely cleaned out of the market, although supplies in large quantities are on hand for distribution when required. The general attitude is one of modest optimism.

The slight stimulus noted in news print last week has continued, the lower prices for the last quarter having had a very salutary effect upon conditions. Prices are a bit lower this week with contract rolls quoted at 4.00@4.25 cents a pound, transit rolls at 4.25@5.25 cents a pound, and sheets at from 5.00@5.75. There is little doubt that the newspapers have materially increased their circulation of late and this, of course, is not an unwelcome phenomena, being wholly to the interests of the dealers and manufacturers of news print.

Prices for book paper remain constant while the demand continues to be satisfactory. Things still improve in this market, which will soon be normal unless all signs should fail. Manufacturers expect that orders will be more numerous and possibly larger on the whole during the ensuing month.

Business in ledgers, bonds and writings is still slow, and will only recuperate when a few more clouds of doubt and fear clear away from the buying market. We need not expect the bankrupt conditions in Europe to iron themselves out immediately. Time alone can afford the much desired panacea, and when this begins to take effect doubtless the fine paper market will boom in sympathy, and very probably not until then. The export business remains dormant and will not awake until the money exchange turns more favorable to the South American and European clientele. Nevertheless, the superiority of American products even now makes a place for them in the foreign field.

The demand for tissue has been good for the past week, for the shoe interests have continued to buy with more or less regularity and dealers have begun to lay in stocks. The market has been active, although both the white and manila tissues have fallen slightly in price. The present outlook is far from discouraging and manufacturers are justly optimistic about the future.

Kraft is more and more in demand, while there seems to be very little on the market. Larger orders lately received tend to brighten the outlook considerably for the wrapping paper men.

Board has remained just about the same this last week as for the preceding week. Orders have been received in slightly increased numbers and with an encouraging steadiness. The price of news board alone suffered a material change, rising from last week's low limit of \$35 a ton to the present low limit of \$55 a ton.

### Mechanical Pulp

Mechanical pulp continues to improve and again the demand has been subjected to a general stiffening. The prices for ground wood are firm and there is no large tonnage in the

market. It is confidently expected that this product will gain ground very rapidly in the next few weeks and will soon again become normal.

### Chemical Pulp

Soda pulp has been the favorite during the last two weeks. The present demand for it closely approaches normal. Some mills are now running at 100 per cent capacity, much to the improvement of the general feeling of the trade. There is little tonnage available for kraft pulp, while the demand is rising and prices are advancing. The market is now free from job lots of kraft pulp and dealers are optimistic about the immediate future.

### Old Rope and Bagging

The market for old rope has been strong this week and there are sufficient supplies on hand to meet the slowly increasing demand. The price of bagging is rising along with the better grades of paper.

### Rags

The rag market shows no great change, although importations seem to be picking up and prices are stabilizing in all of the foreign grades. The strongest market is in No. 1 white shirt cuttings, which have advanced slightly. The demand is, in general, fair and orders are sufficient to care for the accumulation of stocks. A better undertone exists in roofing rags and there has been a reported increase in both the size and quantity of orders for these grades.

### Waste Paper

All grades of waste paper continue in good demand, while the mills continue to get business and while the general feeling tends to change for the better.

### Twine

The demand for twine continues to keep pace with the improvement in paper and dealers expect this to go forward until a normal condition once more obtains in this market.

## OUTLOOK FOR JAPANESE PAPER

(Continued from page 50)

from which to judge the prospect of the paper market, it is regrettable to say remains practically unchanged. The increase in the exports of paper recently have been gratifying, being put at 2,633,000 pounds in January this year and at 5,246,000 pounds in May, showing a gradual increase, of which the greater portion goes to China. This may practically be attributed to the recovery in price of silver. China obtained a majority of her needs last year from Sweden and Norway, but this year, it is noticeable that Japan has lowered her price of paper by about 30 per cent against the highest ever recorded and that she is making strenuous efforts for the sale of her paper in Chinese markets. Viewed in this light, our paper trade is not altogether pessimistic but paper is subject to ups and downs in price somewhat later than general commodities. Therefore when there is no knowing how the future of general markets may develop, we cannot expect the revival of the paper trade alone in the immediate future.

### Papyrus Appears in France

*Papyrus* is a new monthly journal covering the pulp and paper, stationery and allied industries of France. The first issue of the publication appeared last February. Published in connection with the monthly is an annual directory. Special sections of the directory are devoted to the printing arts, lithography, calendars, rotogravure, stationery and office equipment. The address of the publication is *Papyrus*, 30 Rue Jacobs, Paris, France.

# Market Quotations

## Paper Company Securities

New York Stock Exchange, closing quotations October 10, 1921:

Stocks	BID	ASKED.
American Writing Paper Company, pref ..	23	24
International Paper Company, com ..	48 1/4	48 3/4
International Paper Company, pref., stamped ..	69	70
Union Bag & Paper Corporation ..	64 1/2	65 1/4

Because of the unusual conditions prevailing in the various markets quotations are more or less nominal.

Paper	F. o. b. Mill.	
Ledgers ..	12	@ 30
Bonds ..	9.00	@ 55.00
Writings—		
Extra Superfine ..	13	@ 25
Superfine ..	13	@ 20
Tub Sized ..	13	@ 16
Engine Sized ..	9.00	@ 15.00
News—f. o. b. Mill—		
Rolls, contract ..	4.00	@ 4.25
Rolls, transit ..	4.25	@ 5.25
Sheets ..	5.00	@ 5.75
Side Runs ..	3.90	@ 4.80
Book, Case—f. o. b. N. Y.		
S & S C ..	6.70	@ 8.50
M. F ..	6.50	@ 8.25
Cut and En-		
amel ..	8.25	@ 11.00
Lithograph ..	9.00	@ 11.25
Issues—f. o. b. N. Y.		
White, No. 1 ..	70	@ 75
Colored ..	1.10	@ 2.15
Anti Tarnish ..	1.50	@ 2.70
Manila ..	70	@ .80
Kraft—f. o. b. Mill—		
No. 1 Domestic ..	6.00	@ 6.50
No. 2 Domestic ..	5.00	@ 5.50
Imported ..	6.00	@ 6.50
Sulphite Screenings ..	2.00	@ 3.00
Manila		
No. 1 Jute ..	8.00	@ 9.00
No. 2 Jute ..	7.75	@ 8.50
No. 1 Wood ..	5.00	@ 6.00
No. 2 Wood ..	4.50	@ 5.00
linchers ..	4.90	@ 5.70
Paper—		
No. 1 Fiber ..	6.00	@ 7.00
No. 2 Fiber ..	5.00	@ 6.00
Common Bogus ..	1.80	@ 2.10
Card Middle ..	1.60	@ 5.00
Boards—per ton—		
News ..	50.00	@ 55.00
Straw ..	35.00	@ 40.00
Chip ..	35.00	@ 40.00
Binders' Board ..	65.00	@ 75.00
Sgt. Mla. Ld. Crip ..	50.00	@ 60.00
Wood Pulp ..	80.00	@ 90.00
Container ..	55.00	@ 60.00

## Mechanical Help

F. o. b. Pulp Mills.)	
No. 1 Imported ..	30.00 @ 35.00
No. 1 Domestic ..	30.00 @ 35.00
(Ex-Dock)	

## Chemical Pulp

(Ex-Dock, Atlantic Ports.)	
Sulphite (Imported)—	
Bleached ..	4.00 @ 4.25
Easy Bleaching ..	3.00 @ 3.50
No. 1 Strong un-	
bleached ..	2.65 @ 3.00
No. 1 Kraft ..	2.75 @ 3.00
Sulphite—	
Bleached ..	3.25 @ 3.75
(F. o. b. Pulp Mill.)	
Sulphite (Domestic)—	
Bleached ..	4.00 @ 4.25
Strong unbleached ..	3.00 @ 3.25
Easy Bleaching ..	
Sulphite ..	3.00 @ 3.25
News Sulphite ..	2.75 @ 3.00
Mitscherlich ..	3.15 @ 3.75
Kraft (Domestic) ..	2.75 @ 3.00
Soda bleached ..	3.75 @ 4.00

## Domestic Rags

Prices to Mill, f. o. b. N. Y.	
Shut Cuttings—	
New White, No. 1 ..	9.00 @ 9.50
New White, No. 2 ..	5.80 @ 6.00
Silesian, No. 1 ..	6.00 @ 6.25
New Unbleached ..	8.50 @ 8.75
Washables ..	4.25 @ 4.50
Fancy ..	5.25 @ 5.50
Cottons—according	
to Grades—	
Blue Overall ..	4.75 @ 5.25

New Blue ..	4.75 @ 5.00
New Black Soft ..	4.00 @ 4.50
New Light Sec-	
enda ..	2.45 @ 2.75
O. D. Khaki Cut-	
tings ..	3.50 @ 3.75
Corduroy ..	3.00 @ 3.25
New Canvas ..	6.25 @ 6.75
New Black Mixed ..	2.50 @ 2.75

## Old

White, No. 1—	
Repacked ..	5.50 @ 5.75
Miscellaneous ..	4.25 @ 4.50
White, No. 2—	
Repacked ..	3.00 @ 3.25
Miscellaneous ..	2.25 @ 2.50
St. Soiled White ..	1.15 @ 1.35
Thirds and Blues—	
Repacked ..	1.75 @ 2.00
Miscellaneous ..	1.15 @ 1.35
Black stockings ..	1.75 @ 2.00
Cloth Strippings ..	1.00 @ 1.15
No. 1 ..	1.00 @ 1.15
No. 2 ..	.85 @ .90
No. 3 ..	.70 @ .80
No. 4 ..	.60 @ .70
No. 5A ..	.70 @ .80

## Foreign Rags

New Light Silks ..	6.00 @ 6.25
Light Flannels ..	6.25 @ 6.50
Unbleached Cottons ..	7.50 @ 8.00
New White Cut	
tings ..	9.00 @ 10.00
New Light Oxford ..	5.00 @ 6.00
New Light Prints ..	4.50 @ 5.00
New Mixed Cut	
tings ..	nominal
New Dark Cuttings ..	2.50 @ 3.00
No. 1 White Linens ..	8.00 @ 9.00
No. 2 White Linens ..	6.00 @ 7.00
No. 3 White Linens ..	5.00 @ 5.25
No. 4 White Linens ..	3.50 @ 4.00
Old Extra Light	
Prints ..	2.00 @ 2.25
Med. Light Prints ..	1.75 @ 2.00
Dutch Blue Cottons ..	2.00 @ 2.15
German Blue Cot-	
tons ..	1.75 @ 1.90
Ger. Blue Linens ..	3.00 @ 3.50
Checks and Blues ..	1.50 @ 1.60
Dark Cottons ..	1.10 @ 1.15
Shoppings ..	1.00 @ 1.05
French Blues ..	2.00 @ 2.15

## Bagging

Prices to Mill f. o. b. N. Y.	
Gunny No. 1—	
Foreign ..	1.00 @ 1.10
Domestic ..	1.10 @ 1.20
Wool, Tares, light ..	1.25 @ 1.35
Wool, Tares, heavy ..	1.25 @ 1.40
Bright Bagging ..	1.00 @ 1.25
No. 1 Scrap ..	.80 @ .90
Sound Bagging ..	.75 @ .85
Manila Rope—	
Foreign ..	4.25 @ 4.65
Domestic ..	4.50 @ 4.85
New Bu Cut ..	2.25 @ 2.75
Hessian Jute Threads—	
Foreign ..	4.25 @ 4.50
Domestic ..	4.00 @ 4.25
Mixed Strings ..	.90 @ 1.00

## Twines

Cotton— (F. o. b. Mill)	
No. 1 ..	22 @ 23
No. 2 ..	19 @ 20
No. 3 ..	18 @ 19
India, No. 6 basis—	
Light ..	18 @ 19
Dark ..	17 @ 18
B. C. 18 Basis ..	39 @ 40
A. B. Italian, 18	
Basis ..	50 @ 60
Finished Jute—	
Light, 18 basis ..	26 @ 27
Dark, 18 basis ..	24 @ 25

## Jute Wrapping, 2-6

Fly—	
No. 1 ..	25 @ 26
No. 2 ..	23 @ 24
Tube Rope—	
5 ply and larger ..	17 @ 18
Fine Tube Yarn—	
5 ply and larger ..	30 @ 32
4 ply ..	31 @ 33
3-ply ..	32 @ 34
Unfinished India—	
3-ply and larger ..	16 @ 17
Paper Makers Twine	
Balls ..	10 1/2 @ 12 3/4
Box Twine, 2-4 ply ..	14 @ 16
Jute Rope ..	20 @ 24
Amer Hemp, 6 ..	32 @ 34
Sisal Hay Rope—	
No. 1 Basis ..	19 @ 22
No. 2 Basis ..	18 @ 20
Sisal Lath Yarn—	
No. 1 ..	18 @ 19
No. 2 ..	17 @ 19
Manila Rope ..	26 @ 28

## Old Waste Papers

(F. o. b. New York)	
Shavings—	
Hard White, No. 1 ..	3.65 @ 3.85

Hard White No. 2 ..	3.25 @ 3.50
Soft White No. 1 ..	3.00 @ 3.25

Flat Stock—	
Stitchless ..	1.50 @ 1.60
Over Issue Mag. ..	1.50 @ 1.60
Solid Flat Book ..	1.40 @ 1.50
Crumpled No. 1 ..	1.05 @ 1.15
Solid Book Ledger ..	2.00 @ 2.25
Ledger Stock ..	1.75 @ 1.85
No. 1 White News ..	2.00 @ 2.15
New B. D. Chips ..	.50 @ .60

Manila—	
New Env. Cut ..	3.00 @ 3.25
New Cut, No. 1 ..	2.00 @ 2.15
Extra No. 1, Old ..	1.60 @ 1.70
Print ..	.90 @ 1.00
Container Board ..	.75 @ .85
Bogus Wrapper ..	.70 @ .80
Old Krafts, ma-	
chine compressed	
Bales ..	2.00 @ 2.10

News—	
Strictly Overissue ..	.85 @ .90
Strictly Folded ..	.70 @ .80
No. 1 Mixed Paper ..	.50 @ .55
Common Paper ..	.35 @ .40

## CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

Paper	F. o. b. Mill.	
All Rag Bond ..	40	@ —
No. 1 Rag Bond ..	30	@ 40
No. 2 Rag Bond ..	18	@ 20
Water Marked Sul-		
phite Bond ..	11	@ 15
Sulphite Ledger ..	9	@ 12
Sulphite ..	14	@ 15
Superfine Writing ..	23	@ 30
No. 1 Fine Writing ..	20	@ 27
No. 2 Fine Writing ..	18	@ 25
No. 3 Fine Writing ..	11	@ 14
No. 1 M F Book ..	5 1/2	@ 7
No. 1 S & S. C		
Book ..	6 1/2	@ 7 1/2
Coated Book ..	8 1/2	@ 10 1/2
Coated Label ..	8 1/2	@ 10 1/2
News-Rolls, mill ..	4	@ 5
News-Sheets, mill ..	4 1/2	@ 5 1/2
No. 1 Manila ..	5 1/2	@ —
No. 1 Fiber ..	5 1/2	@ —
No. 2 Manila ..	5	@ —
Butchers' Manila ..	4 1/2	@ —
No. 1 Kraft ..	6	@ —
No. 2 Kraft ..	5 1/2	@ —
Wood Tag Boards ..	5	@ —
Screenings ..	1	@ —
Boards, per ton—		
Plain Chip ..	45.00	@ 47.50
Sold News ..	50.00	@ 55.00
25 and heavier ..	55.00	@ 57.50
18 to 24 ..	57.50	@ 60.00
Manila Lined		
Chip ..	60.00	@ 65.00
Container Line—		
85 Test ..	65.00	@ 67.50

## PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

Paper		
Bonds ..	10	@ .60
Ledgers ..	15	@ .40
Writings—		
Superfine ..	15	@ .20
Extra fine ..	12	@ .22
Fine ..	20	@ .30
Fine, No. 2 ..	70	@ .25
Fine, No. 3 ..	15	@ .20
Book, M F ..	.06	@ .09
Book, S. S. & C ..	.08	@ .15
Book, Coated ..	.08	@ .15
Coated Lithograph ..	.10	@ .15
Label ..	.08	@ .15
News ..	.05	@ .07
No. 1 Jute Manila ..	18	@ 18 1/2
Manila Sul., No. 1 ..	09 1/2	@ .10
Manila No. 2 ..	08 1/2	@ .09
No. 2 Kraft ..	—	@ .07
No. 1 Kraft ..	—	@ .08
Common Bogus ..	02	@ .03 1/2
Straw Board ..	35.00	@ 45.00
News Board ..	40.00	@ 45.00
Chip Board ..	30.00	@ 35.00
Wood Pulp Board ..	90.00	@ 100.00
(Carload Lots)		
Binder Boards—		
Per ton ..	\$65.00	@ 75.00
Carload lots ..	60.00	@ 65.00
Tarred Felts—		
Regular ..	75.00	@ 80.00
Slaters ..	80.00	@ 85.00
Best Tarred, 1-ply		
(per roll) ..	2.00	@ 2.10
Best Tarred, 2-ply		
(per roll) ..	1.50	@ 1.60
Best Tarred, 3-ply ..	2.00	@ 2.10
Bagging		
F. o. b. Phila.		
Gunny No. 1—		
Foreign ..	2.25	@ 2.50
Domestic ..	1.00	@ 1.25
Manila Rope ..	4.00	@ 4.50
Sisal Rope ..	.75	@ .80
Mixed Rope ..	.75	@ .80
Scrap Burlaps ..	1.00	@ 1.25
Wool Tares, heavy ..	2.50	@ 2.75
Mixed Strings ..	.75	@ .80
No. 1, New Lt. Bur-		
laps ..	.75	@ .80
New Burlap Cut-		
tings ..	1.75	@ 2.10
Old Papers		
F. o. b. Phila.		
Shavings—		
No. 1, Hard ..	3.00	@ 3.50
No. 2, Hard ..	2.75	@ 3.00
No. 1 Soft White ..	2.00	@ 2.50
No. 2 Soft White ..	1.50	@ 1.75
No. 1 Mixed ..	1.00	@ 1.25
No. 2 Mixed ..	.60	@ .75

(Continued on page 58)

# Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING OCTOBER 8, 1921

### SUMMARY

News Print	497 bbls., 1,831 reels, 4,685 rolls
Printing Paper	128 bbls., 81 cs., 127 rolls
Cigarette Paper	54 cs.
Wrapping Paper	999 rolls, 309 bbls.
Drawing Paper	10 cs.
Filter Paper	4 cs.
Surface Coated Paper	1 cs.
Wall Paper	868 rolls
Waxed Paper	2 cs.
Tissue Paper	15 cs.
Miscellaneous Paper	35 cs., 48 reels

### CIGARETTE PAPER

B. I. Teale, Canada, Marseilles, 54 cs.

### PRINTING PAPER

F. Enders & Co., Mt. Clinton, Hamburg, 11 rolls  
F. Enders & Co., Bayern, Hamburg, 116 rolls  
L. A. Consmauer, Ryndam, Rotterdam, 51 cs.  
American Express Co., Eglantier, Antwerp, 30 cs.  
H. Reeve-Angel & Co., Milwaukee Bridge, Hel singers, 128 bbls.

### NEWS PRINT

H. Reeve-Angel & Co., Milwaukee Bridge, Hel singers, 497 bbls.  
H. Reeve-Angel & Co., by same, 557 reels.  
American Express Co., Milwaukee Bridge, Sundsvall, 387 rolls.  
Nat'l Park Bank, by same, 335 rolls.  
Nat'l Park Bank, by same, 1,277 reels.  
Sun Herald Corp., Drothningholm, Gothenburg, 771 rolls.  
Sun Printing & Publishing Association, by same, 560 rolls.  
H. Reeve-Angel & Co., by same, 30 rolls.  
Sun-Herald Corp., Lackawanna Valley, N. J., 2,088 rolls.  
Sun-Herald Corp., Lackawanna Valley, N. J., 834 rolls.  
Hudson Trading Co., Bayern, 15 rolls.

### WRAPPING PAPER

Coy, Hunt & Co., Drothningholm, Gothenburg, 999 rolls.

Coy, Hunt & Co., by same, 309 bbls.  
Hend Wax Paper Co., Zealand, Antwerp, 10 cs.

### DRAWING PAPER

P. Puttmann, Zealand, Antwerp, 5 cs.  
H. Reeve-Angel & Co., Ryndam, Rotterdam, 5 cs.

### FILTER PAPER

H. Reeve-Angel & Co., Ryndam, Rotterdam, 4 cs.

### SURFACE COATED PAPER

W. Heuerman, Eglantier, Antwerp, 1 cs.

### WALL PAPER

The Paper Co., Zealand, Antwerp, 868 rolls.

### WAXED PAPER

R. F. Downing & Co., Mesabi, London, 2 cs.

### TISSUE PAPER

Wilkinson Bros & Co., Carmania, Liverpool, 7 cs.  
Davies, Turner & Co., by same, 8 cs.

### PAPER

L. A. Consmauer, Ryndam, Rotterdam, 10 cs.  
L. A. Scott, Eglantier, Antwerp, 48 reels.  
F. K. Arnold & Co., Zealand, Antwerp, 6 cs.  
H. F. Drakenfeld & Co., Carmania, Liverpool, 5 cs.  
Eastman Kodak Co., Donald McKay, Melbourne, 14 cs.

### RAGS, BAGGING, ETC

F. Butterworth & Co., Storm King, Rotterdam, 68 bbls. rags.  
Brown Bros & Co., Storm King, Antwerp, 216 bbls. rags.  
E. J. Keller Co., by same, 61 bbls. bagging.  
F. Butterworth & Co., Chicago, Havre, 61 bbls. new cuttings.  
F. J. Keller Co., by same, 152 bbls. rags.  
D. M. Hicks, by same, 130 bbls. bagging.  
R. F. Downing & Co., Mesabi, London, 53 bbls. rags.

Mechanics & Metals, Nat'l Bank, Hudson, Bremen, 47 bbls. rags.  
E. J. Keller Co., by same, 201 bbls. rags.  
M. Frank, Ryndam, Rotterdam, 44 bbls. old cottons.  
Katzenstein & Keene, Eglantier, Antwerp, 299 bbls. rags.  
E. J. Keller Co., Chicago City, Bristol, 85 coils rope.

### OLD ROPE

Ladenburg, Thalman & Co., Carmania, Liverpool, 98 cs.

### CHINA CLAY

F. M. Carnochan, Carmania, Liverpool, 8 casks.

### WOOD PULP

Castle, Gotthel & Overton, Storm King, Rotterdam, 945 bbls, 300 tons.  
Nat'l City Bank, Drothningholm, Gothenburg, 792 bbls.  
A. J. Pagel & Co., Inc., by same, 840 bbls. sulphate.  
Wood Pulp Trading Co., Milwaukee Bridge, Sundsvall, 3,500 bbls. sulphate, 711 tons.  
American Wood Pulp Co., by same, 5,650 bbls. sulphate, 1,116 tons.

## PHILADELPHIA IMPORTS

WEEK ENDING OCT 8, 1921

Lapeer Trading Co., Lackawanna Valley, N. J., 6,000 bbls. sulphate, 1,026 tons.  
E. J. Keller, Tasmania, Gothenburg, 660,000 bbls. wood pulp.  
Castle, Gotthel & Overton, Breiz Yzel, Havre, 71 bbls. rags.

## NORFOLK, VA., IMPORTS

WEEK ENDING OCTOBER 8, 1921.

Castle, Gotthel & Overton, Seythian, Antwerp, 61 bbls. rags.

## IMPROVEMENT IN TORONTO

(Continued from page 30)

Pulp and Paper Mills, has been a perfect blessing to the town and if the work had not been in progress there would have been great suffering and hardship from unemployment. The Mayor adds that Mr. Backus has made fine progress with all that he has undertaken in the way of construction operations and that a start will shortly be made on excavation on the eastern channel of the Wumpig river. He also expresses his approval of the deal entered into by the province with Mr. Backus in reference to the English river pulpwood limits and the erection of a pulp and paper mill at Kenora.

### Provincial Paper Mills Fine Showing

The position of the Provincial Paper Mills, Limited, Toronto, who are the largest manufacturers of book paper in the Dominion, with plants at Mille Roches, Thorold, Georgetown and Port Arthur, Ont., is a very satisfactory one. The company is in a strong position and has ample working capital. The statement as of June 30 last is: Cash in hand and at the banks, \$159,163; bills and accounts receivable, less reserve for bad debts, \$719,734; short term Victory bond, \$395,000 (par value \$401,700); government deposit on timber limits and other investments, \$169,500; inventory and prepaid insurance, \$980,993. It is pointed out that inventory is always large at the mid-year. The company has no bank loans, its inventory being paid for in full and its total current indebtedness, including dividends due July 2 last, is only \$403,649.

### Cannot Cut Any More in Park

Applications have been made to Hon. Beniah Bowman, Minister

of Lands and Forests for the province of Ontario, for the right to cut certain woods in Algonquin Park, but the minister has declined to entertain the idea of granting new licenses. The park is a large forest reserve in which some lumbermen still have the right to cut timber, although several licensees were bought out by the province a few years ago.

### General Notes and Jottings of the Trade

A score of provincial foresters have been engaged during the past month at Camp Borden gathering 360,000,000 red pine seeds for next summer's planting in Ontario forestry nurseries.

Reports that the timber investigation has cost the province of Ontario \$750,000 and that as a result only \$124,000 in fees had been paid into the treasury, are denied by Attorney General Raney, who states that the sum expended in the work of the timber probe will be very much less than the total quoted. The expenses of the commission to date have not yet been made up.

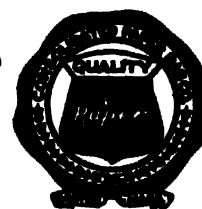
The annual convention of the United Typothetae of America will be held at the King Edward Hotel, Toronto, on October 17, 18, 19 and 20. Large delegations are expected from almost every state of the Union and from every province in Canada. The world's smallest papermaking machine, which is only nine feet long, will be exhibited in operation. It is owned by the American Writing Paper Company, Holyoke, Mass.

Hon. T. D. Pattullo, Minister of Lands for the province of British Columbia, spent a couple of days in Toronto last week on his way home from a business trip to Great Britain and the Continent. He spent some time studying Sweden's treatment of forestry, pulp production, water powers, etc., and also conducted similar investigations in Germany and France.

# CONSOLIDATED PAPER BAG CO.

*General Offices:*  
125 Merrimac St., Boston, Mass.

*Factory:*  
Somerville, Mass.



*Manufacturers of*  
**PAPER BAGS and SACKS of EVERY DESCRIPTION**

Samples submitted on request

Inquiries Solicited

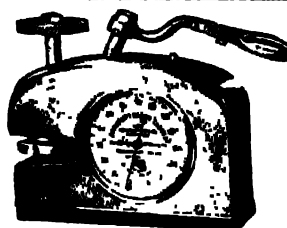
## POTDEVIN

PAPER BAG  
ENVELOPE (Open-end  
Center or  
Side-Seam)  
PAPER WAXING

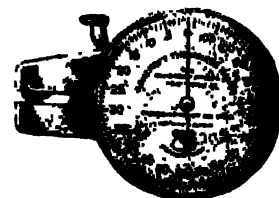
## MACHINERY

**POTDEVIN MACHINE CO.**

1223 38th Street Brooklyn, N. Y.  
Est. 1893—Inc. 1906 Phones: 5180-5181 Sunset



**The Ashcroft  
Paper Tester**



**The Ashcroft  
Thickness Gauge**

Actual necessities for all those who make, sell or purchase paper in any form. The thousands in daily use testify to their efficiency.

**THE ASHCROFT MFG. CO.**

110 West 40th Street New York 29 North Jefferson Street Chicago, Ill. 10 High Street Boston, Mass.  
Canadian Sales Agents: The Canadian Fairbanks Morse Co., Montreal and Toronto.

## BLEACHED SULPHITE

FOR

Writing, Book and Tissue Papers

**PARSONS**  
Pulp and Lumber Co.

EDWIN J. DEWEY, Manager Pulp Sales

Offices, 1807-1810 Finance Bldg.,  
PHILADELPHIA, PA.

Mills at  
PARSONS, WEST VA.

Super Calenders  
Breaker Calenders  
Friction Calenders  
Embossing Calenders  
Hydraulic Presses and Pumps



*Successors to the Granger Foundry & Machine Co.*

**The Textile-Finishing Machinery Company**  
Providence, R. I.

## Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,  
TUESDAY, October 11, 1921.

A generally more active demand has marked the chemical markets for this week. In accord with the conditions of business which authorities state are improving slowly but surely the commodities listed below have been exhibiting an upward tendency. The demand for saltcake in particular has shown the greatest improvement.

**ALUM**—Both potash and ammonia alum have improved a little. Orders for ammonia alum continue to keep that chemical increasingly more active. The price of ammonia alum remains at 350 to 375 cents a pound for the lump, 375 to 400 cents for the ground, and 400 to 525 cents for the powdered.

**BLEACHING POWDER**—An average demand for bleaching powder has been maintained this week. The domestic product is quoted at 225 to 300 cents a pound depending upon quantity. Foreign bleach is quoted at from 200 to 225 cents a pound.

**BLANC FIXE**—Blanc fixe continues firm with the paper mills showing some interest and the number of orders increasing slowly day by day. The quotation on pulp is from \$40 to \$50 a ton depending on the grade required, while the powdered remains at 350 to 375 cents a pound. Prices are firm.

**BRIMSTONE**—Orders for small quantities of brimstone are increasing but little interest is taken in the purchase of large lots according to reports of the dealers and manufacturers. The price seems balanced as it has been now for several weeks, being \$15 to \$16 a long ton at the mines.

**CASEIN**—There is not so much casein in the open market as there has been, but there is still enough to supply the present rather slow demand. Dealers report that it is improving all the time, however, and the price is firm at 650 to 800 cents a pound.

**CAUSTIC SODA**—Prices for caustic soda remain very firm and the demand is good. It is quoted at 325 cents a pound on a 60 per cent basis.

**CHINA CLAY**—The demand for china clay is increasing and will be normal within a few months provided that business continues its snail-like march in a forward direction. Importations are now of considerable volume and the demand for domestic is considered to be good. Prices are the same with the domestic unwashed grade selling at from \$7 to \$8 a ton, domestic washed at \$9 to \$10 a ton and the imported at from \$16 to \$24 a ton depending upon the grade required.

**ROSIN**—The demand for rosin is steadily increasing with both the paper and soap industries buying more heavily. The price is about the same with grade E selling at \$5.85 per barrel, F at \$6.05 and G at \$6.10.

**SALTCAKE**—The demand for saltcake continues to improve moderately along with the supply lately rendered more plentiful by the resumption of several of the chemical plants manufacturing muriatic acid, of which saltcake is a by-product. The glass trade has bought heavily of late and more saltcake is now selling toward the \$25 limit than at the low limit of \$17.

**SATIN WHITE**—Satin white is selling to an average market with the contract price hovering around 2.10 cents a pound.

**STARCH**—Globe starch is now quoted at from 1.90 to 2.26 cents a pound with a fairly good demand.

**SULPHATE OF ALUMINA**—Paper mills continue to buy sulphate of alumina at the same price as last week. The commercial grade sells at 160 to 200 cents a pound and the Iron Free grade at 250 to 300 cents.

**SODA ASH**—There has been a slight price reduction for soda ash which now sells at from 2.20 to 2.50 depending on the seller.

**TALC**—The demand for domestic talc remains the same with the price ranging nominally from \$14 to \$18 a ton.

## Market Quotations

(Continued from page 55)

Solid Ledger Stock	1.75	@	2.00
Writing Paper	1.50	@	1.75
No. 1 Books, heavy	1.25	@	1.50
No. 2 Books, light	.90	@	1.00
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.25	@	1.50
Container Manila	.75	@	.80
Old Kraft	2.00	@	2.25
Overissue News	.90	@	1.00
Old Newspaper	.40	@	.50
No. 1 Mixed Paper	.40	@	.50
Common Paper	.25	@	.30
Straw Board, Chip	.25	@	.30
Binders' Bd. Chip	.25	@	.30
Domestic Rags—New			
Price to Mill, f. o. b. Phila.			
Shirt Cuttings			
New White, No. 1	.09	@	.09½
New White, No. 2	.05½	@	.06
Silesias, No. 1	.05½	@	.06
New unbleached	.08	@	.09
Washables	.03½	@	.03¾
Fancy	.05	@	.05½
Cottons—according to grades			
Blue Overall	.05	@	.05½
New Blue	.02½	@	.02¾
New Black Soft	.03	@	.03½
New Light Sec-			
onds	.02½	@	.03½
Khaki Cuttings	.03	@	.03½
Corduroy	.02	@	.02½
New Canvas	.08	@	.08½
New Black Mixed	3.00	@	3.25
Old			
White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04½	@	.04¾
White, No. 2—			
Repacked	.03	@	.03½
Miscellaneous	.02½	@	.03¾
Thurds and Blues			
Repacked	1.85	@	2.00
Miscellaneous	1.55	@	1.75
Black stockings	1.75	@	2.25
Roofing Stock			
No. 1	.90	@	1.00
No. 2	.80	@	.90
No. 3	.70	@	.80
No. 4	.75	@	.85
No. 5A			nominal
B			nominal
C			nominal

## BOSTON

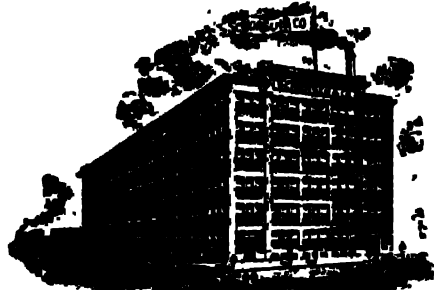
[FROM OUR REGULAR CORRESPONDENT.]

Paper			
Bon is	.08½	@	
Ledgers	.09	@	
Writings	.08½	@	
Superfine	.15	@	
Fine	.12	@	
Books, S. & S. C.	.07½	@	
Books, M. F.	.07	@	
Books, coated	.09	@	
Label	.10	@	
News, sheets	\$4.50	@	
News, roll	.04	@	
Manila—			
No. 1 Manila	\$7.00	@	
No. 1 Fibre	8.00	@	
No. 1 Lite	8.00	@	
Kraft Wrapping	7.00	@	
Common Bogus	3.00	@	
Boards			
(Per Ton Destination)			
Chip	\$40.00	@	
News, Vat Lined	42.50	@	
Wood, Vat Lined	47.50	@	50.00
Filled News Board	42.50	@	
Solid News Board	42.50	@	47.50
S. Manila Chip	55.00	@	
Pat. Coated	75.00	@	
Old Papers			
Shavings—			
No. 1 Hard White	.03½	@	
No. 1 Soft White	.03	@	
No. 1 Mixed	.85	@	\$1.00
Ledgers & Writings	.02	@	
Solid Books	.01½	@	
Blanks	.01½	@	
No. 2 Books Light	.80	@	
No. 1 Manila	.01	@	
Folded News, over			
issues	18.00	@	
Mixed paper	9.00	@	
Gunny Bagging	.75	@	
Manila Rope	.04½	@	
Common Paper	8.00	@	
Old News	14.00	@	
Old Kraft	.02½	@	

## TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

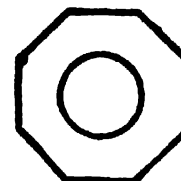
Paper			
(Mill Prices to Jobbers f. o. b. Mill)			
Bond—			
Sulphite	13	@	—
Light tinted	14	@	—
Dark tinted	15½	@	—
Ledgers	14	@	—
Writing	11	@	15
News, f. o. b. Mills—			
Rolls (carloads)	4.75	@	—
Sheets (2 tons or			
over)	5.60	@	—
Book—			
No. 1 M. F. (car-			
loads)	10.00	@	—
No. 2 M. F. (car-			
loads)	9.00	@	—
No. 3 M. F. (car-			
loads)	8.50	@	—
No. 1 S. C. (car-			
loads)	10.50	@	—
No. 2 S. C. (car-			
loads)	9.50	@	—
No. 1 Coated and			
lithe	15.00	@	—
No. 2 Coated and			
lithe	14.00	@	—
No. 3 Coated and			
lithe	13.25	@	—
Coated and lithe,			
colored	15.25	@	—
Wrapping—			
Grey	4.75	@	—
White Wrap	3.25	@	—
"B" Manila	5.75	@	—
No. 1 Manila	7.50	@	—
Fibre	7.25	@	—
Kraft, M. F. or			
M. G.	8.75	@	—
Pulp			
(F. o. b. Mill)			
Ground Wood	\$30.00	@	\$40.00
Sulphite, easy bleach-			
ing	70.00	@	75.00
Sulphite, news grade	60.00	@	65.00
Sulphite bleached	90.00	@	95.00
Sulphate	60.00	@	65.00
Old Waste Papers			
(In carload lots, f. o. b. Toronto)			
Shavings—			
White Env Cut	3.00	@	—
Soft White Book			
Shavings	2.80	@	—
White Blk News	1.90	@	—
Book and Ledger—			
Flat Magazine and			
Book Stock			
(old)	1.15	@	—
Light and Crum-			
pled Book Stock	.90	@	—
Ledgers and			
Writings	1.60	@	—
Solid Ledgers	1.60	@	—
Manila—			
New Manila Cut	1.85	@	—
Printed Manilla	.70	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.85	@	—
Folded News	.90	@	—
No. 1 Mixed Pa-			
pers	.60	@	—
Domestic Rags—			
Price to mills, f. o. b. Toronto.			
Per lb.			
No. 1 White shirt			
cuttings	.80½	@	.80½
No. 2 White shirt			
cuttings	.85½	@	.85½
Fancy shirt cut-			
tings	.81½	@	.81½
No. 1 Old whites	.83½	@	.83½
Thurds and blues	.62	@	.62
Black stockings	2.00	@	—
Roofing stock			
No. 1	1.20	@	—
No. 2	1.10	@	—
Roofing stock			
Manila rope	.84	@	—
No. 2	.81½	@	—
Gunny bagging	.80½	@	—

*The Home of Quality*FACTORY  
132ND TO 133RD ST & BROOK AVE**PAPER BAGS****Sacks and Specialties**

ESTABLISHED 1881

**SCHORSCH & CO.****Manufacturers****500 East 133d Street**

:

**New York**This Registered Trade  
Mark Octagonon a Paper  
Bag Vouches for  
Its Good Quality**Buchanan & Bolt Wire Company**ESTABLISHED 1878 AT HOLYOKE, MASS.

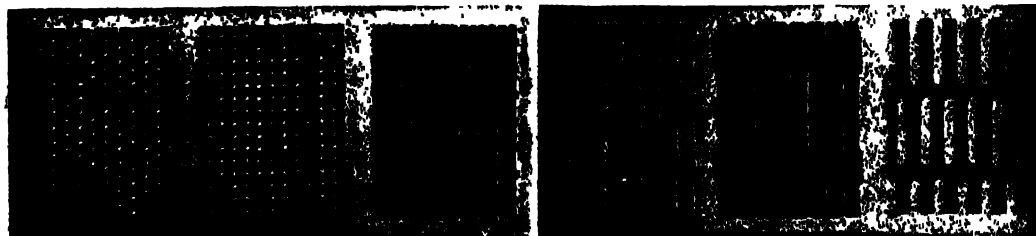
Makers of Highest Grade Fourdrinier Wires, Dandy Rolls, Cylinder Covers, Brass Wire Cloth  
of all Meshes for Paper, Pulp and Coating Mills—Quality Guaranteed

We make a specialty of Fine Wires for Magazine and Book Papers

**Felt Test—Lowest Cost per Ton**

If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts, for ORR felts will produce the lowest cost per ton. They "stand up" under severe usage. Orr durability is acknowledged everywhere. Their strength and long life are as dependable as their reliability and quality.

In the 32 grades of Felts and Jackets we can match your most exacting demands. Tell us the kind of paper you desire to make, and we will send you samples of felts that will economically serve you and help you to produce paper at lowest cost per ton.

**THE ORR FELT & BLANKET COMPANY, Piqua, Ohio****PERFORATED METALS***All sizes  
and  
shapes  
of Holes**All kinds  
and  
thicknesses  
of Metal*

For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

**The Harrington & King Perforating Company**

618 No. Union Ave., Chicago, Ill., U. S. A.

New York Office, 114 Liberty St.

# WANT AND FOR SALE ADVERTISEMENTS

## CLASSIFIED RATES

Minimum rate for advertisements of 25 words or less, first insertion, \$1.00.

**SITUATION WANTED**, 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words accepted.

**HELP AND MISCELLANEOUS WANTS**, and small For Sale Ads, 4 cents a word for each and every insertion. No ads of less than 25 words accepted.

When answering advertisements, please address the Box Number given in ad.

Answers can be forwarded care Paper Trade Journal, and will be promptly forwarded without extra charge. All should be sent to the New York office, 10 East 39th street. And all should be addressed as the advertisement directs in every case and not simply to the paper.

All classified ads for the current issue must be in hand not later than Monday preceding date of publication.

## HELP WANTED

**WANTED**—Color and Dyestuff Salesman for Middle West by an old established manufacturing and importing concern, to call on the manufacturing trade. Liberal compensation to a successful party. State previous experience, references, age and salary expected. Address, Box 4418, care Paper Trade Journal. O-27

**WANTED**—Salesman Coarse Paper, Twine, etc. By old Established New York Jobber of wide reputation. Field unlimited. Must have established trade. Commission basis. Drawing account. Communications strictly confidential. Address, Box 4478, care Paper Trade Journal. O-13.

**WANTED**—Superintendent Experienced on Container and Combination Boards. Must be first class in mill construction and maintenance. Be able to handle help and get results. Central territory, large mill. Good opportunity for right man. Address, Box 4481, care Paper Trade Journal. O-20

**WANTED**—Night Superintendent. Box-board mill in Middle West. Must understand container and combination boards and be able to handle help. Good position for right man. Address, Box 4482, care Paper Trade Journal. O-20

**COAL SALE AGENTS**—A Coal Company with a large bituminous tonnage desires agents in various localities to sell coal to manufacturers and others on a commission basis. Send references. Address, Box 4485, care Paper Trade Journal. O-20

**WANTED AT ONCE**—Cost Clerk, capable of handling cost work for Board Mill. Must be experienced and capable of taking charge of Mill Office routine. No application will be considered without best of references. Bond necessary. Address, Box 4488, care Paper Trade Journal. O-13

**PAPER AND TWINE SALESMAN** for New York City. To a man who has been successfully selling in this territory we can turn over a large volume of business or a man who is now employed in the paper and twine business and familiar with buyers and wants to make a change. L. Hyman & Sons, 121 Spring St., New York City.

**BACKTENDER**—Experienced on Board. Must be a first class man. State age, experience and give references in first letter. Address, Box 4515, care Paper Trade Journal. O-13.

**EXPERIENCED BOX BOARD SALESMAN**, preferably one acquainted with New England Trade. Replies treated confidentially. Address, Box 4481, care Paper Trade Journal. O-13.

**SALESMAN**—To cover State of Jersey for large manufacturer of Wrapping Paper, Paper Bags, Toilet Paper, Tissues, etc. Must be thoroughly experienced. Splendid opportunity for a capable man. Address, Box 4432, care Paper Trade Journal.

## HELP WANTED

**FOREMAN**—We want a young man who is thoroughly experienced to take full charge of a Toilet Paper Converting Plant located in Brooklyn, N. Y. Write in detail, giving your past experience, and salary expected. Good opportunity for a reliable man. Address, Box 4516, care Paper Trade Journal. O-13.

**BOND AND BOOK PAPER SALESMAN** with New York Clientele desiring greater opportunity and recognition of ability can obtain 50% commission on sales. Address, Box 4517, care Paper Trade Journal. O-13.

**EXPERIENCED MACHINE TENDER** WANTED on Cylinder Machine making Box Board. State experience and salary expected. Good job. Steady work. Address, Box 4518, care Paper Trade Journal. N-3

**WANTED**—An experienced General Superintendent to take entire local charge of a Modern News Mill with Sulphite and Groundwood Mills. Give full personal particulars details of experience and operating record. Address, Box 4424, care Paper Trade Journal. O-13

## SITUATIONS WANTED

**SUPERINTENDENT** desires position 20 years' experience on all grades of Combination and Container Board familiar with repairs, maintenance and operation of every department. Knows how to get quality and production. Can furnish the very best of references. Address, Box 4347, care Paper Trade Journal. tf

**PAPER SALESMAN**, New York City, wants connection with Mill Agency Company. Can produce large amount of business, with right kind of cooperation. Drawing account on commission basis. Correspondence invited with responsible agencies. Address, Box 4503, care Paper Trade Journal. tf

**MASTER MECHANIC** desires position. Expert Construction, Reconstruction. Installing Equipment and Economical Maintenance. Ground Wood and Sulphite from the log to finished product. Fourdrinier machines making Book, Bond, News and Specialties. Cylinder Machines making Board, Bristol and Tissue Specialties, using water, steam and electric power. Address, Box 4425, care Paper Trade Journal. O-27

**WANTED**—Situation as superintendent of mill making Binders, Friction and other Boards. Have been successful in building and repair work. Address, Box 4426, care Paper Trade Journal. O-13

**WANTED**—Position as Machine Tender by reliable married man. Experienced on all grades of Boxboards. Can furnish references. Address, Box 4446, care Paper Trade Journal. O-13

A PRACTICAL PAPERMAKER WHO HAS GIVEN SPECIAL ATTENTION TO THE RECLAMATION OF PULP FROM OLD PAPER STOCK AND WHO HAS JUST PERFECTED A PROCESS FOR THE ABOVE PURPOSE WOULD LIKE TO GET IN TOUCH WITH SOME MANUFACTURER WHO IS HAVING TROUBLE IN HANDLING OLD PAPER OR CONTEMPLATING THE USE OF SAME AS A RAW MATERIAL. ADDRESS BOX 4495, CARE PAPER TRADE JOURNAL. O-13.

## SITUATIONS WANTED

**POSITION WANTED**—By Superintendent of 20 years' experience in mill making news, Manilla, Water and Dry Finish Fibres, Sulphite and Sulphate Test Papers. Good organizer and executive. Best of references furnished. Address, Box 4461, care Paper Trade Journal. O-27.

**SULPHITE MILL SUPERINTENDENT** with wide experience in the manufacture of Bleached and Unbleached, Hemlock and Spruce Pulp. Understand all acid systems and latest methods of cooking. Specialised in production of Strong Fiber. Familiar with repairs, maintenance, and know how to handle men to get results. Best of references furnished. Address, Box 4463, care Paper Trade Journal. O-13.

**YOUNG MAN**, 24 years old, desires connection with Paper House in New York City or vicinity. Possesses general knowledge of Writings, Bonds, Coarse Papers, etc., also two years' mill experience in all branches of cost accounting. Capable of filling position in Accounting or Sales Department. Address, Box 4475, care Paper Trade Journal. O-13

**THOROUGH SUPERINTENDENT** desires position, experienced on tissues, all grades Crepe, Semi-Crepe, Toilet, Towels, Napkins, Fourdrinier and Cylinder Machines. High grade man on Kraft and Kraft Specialties, Waxing Tissues, plain and colored, Twisting Fibres A-1 on Colors. Thoroughly understand the conversion of Waxing Tissues and Colored Crepe Papers. Good organizer. References furnished. Address, Box 4431, care Paper Trade Journal. O-13

**POSITION WANTED** as Boss Beaterman, Assistant Superintendent or Night Boss. Well up on Box Board and nearly all other grades A-1 on colors. Address, Box 4490, care Paper Trade Journal. O-13

**PAPER MILL SUPERINTENDENT**, with long practical experience on Roofing Felt, would like to change position. Thoroughly understands repairs, construction and rebuilding. Address, Box 4492, care Paper Trade Journal. O-20

## The Want Columns

of the

## Paper Trade Journal

are

## Result Getters

## TRY THEM

**SITUATIONS WANTED**

**WANTED POSITION** as assistant Superintendent or Tour Boss. Would consider running Machine. Have had 17 years' experience on Box Board Machines and Combination Boards, and well up on High Test Containers. Address, Box 4499, care Paper Trade Journal. O-13

**POSITION WANTED**—Mill Superintendent, cylinder machines. Have had many years experience on Felt Wrapping and Asbestos Papers. Familiar on Construction, Remodeling and Repairs. New England preferred. Address, Box 4507, care Paper Trade Journal. O-13.

**MECHANICAL ENGINEER AND DRAFTSMAN** desires position, 14 years' experience in designing, erecting, planning, estimating, traveling and efficiency engineering Pulp and Paper Mill. At present employed. Address, Box 4519, care Paper Trade Journal. O-27

**MACHINE TENDER** of wide experience is looking for position in Paper Mill where production, quality and economy is required. Experienced on Tag, Box Board, Rope Paper, Roofing and Specialties. Address, Box 4520, care Paper Trade Journal. O-27

**SITUATION WANTED**—Cylinder Machine Tender desires position. First class man, married, 12 years' experience on Crepe and Tissue. Can furnish best references. Address, Box 4521, care Paper Trade Journal. O-20

**YOUNG MAN**, 25, ambitious who has been in the Coarse and Fine Paper Trade for the last five years would like to make connection with reliable firm where there is a possibility for good future. Has worked in the capacity of Correspondent, Office Man and Salesman. Also familiar with practically all grades of Paper, Boards, etc. Address, Box 4522, care Paper Trade Journal. O-13

**STENOGRAPHER, EXPERIENCED LADY** Stenographer desires a position in New York City with Mill Representative or Jobber, capable of taking charge of small office. Address, Box 4523, care Paper Trade Journal. O-13

**FOR SALE**

**FOURDRINER PART**—One 90" P & J Fourdriner part with Millsaugh suction couch roll and pump, 40 ft wire

**JORDANS**—Several Horse and Emerson on way to our works. One Noble & Wood; two No 1 Clafins

**KOLLERGANGS**—One kollergang, size of stone 56" x 15" face

**PULLYS**—One 97" dia. x 34", double arm, modern pulley. Large cone pulleys. Large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches. Also steel pulleys.

**PUMPS**—One dry suction, single vacuum, 12 x 22 x 18 Knowles; one 1,000 gallon Blake Tank Pump, several 7" and 8" Lawrence Machine Company, Class A, High Duty Pumps; Fan Pumps; new stock pumps, single and double

**PRESS ROLLS**—Large number of different sizes on hand. Some suitable for rubber covering. Six rolls about 15" x 98" just received. Some brass and some rubber covered.

**ROTARIES**—Two 84" x 22" horizontal.

**REELS**—One two-bowl 58" face. Several new ones going through works. State which you desire.

**RAG CUTTERS**—One Daniels No. 2; one Taylor & Stiles.

**SLITTERS**—Two Dietz Slitters.

**SCREENS**—One 10-plate open side Packer with plates; one 12-plate open side Packer with practically new plates. Three Ruth centrifugal.

**WINDERS**—One 80" single drum P & J make; one 100" double drum, P & J make.

Advise us of your wants.

**MILLS MACHINE COMPANY**  
LAWRENCE, MASS.

**SITUATIONS WANTED**

**SUPERINTENDENT** wants position in mill making Chip Boards or Wrappers. Experienced at construction and remodeling. Middle aged. Would consider small Mill. Address, Box 4425, care Paper Trade Journal. O-13.

**POSITION WANTED**—As Superintendent of Mill making Binders, Leather or other Boards, middle-aged man, good at construction and repairs. Address, Box 4426, care Paper Trade Journal. O-13.

**WANTED POSITION** as Machine Tender by reliable Married Man. Have had wide experience on all grades of Tissue on Harper Edwards, some on Cylinder Machines. Can furnish references. Address, Box 4427, care Paper Trade Journal. O-13.

**A BOND, WRITING AND LEDGER SUPERINTENDENT** desires position as Superintendent of a Mill. Have had twenty-seven years' experience in Bond and Writings Mills and have had full charge as Superintendent for the last 10 years. Can furnish best of references. Address, Box 4428, care Paper Trade Journal. O-20

**SUPERINTENDENT**, now unemployed would like to make change. Understands thoroughly the Cylinder Machines. Making high grade Box Board. Tests, Containers, and Fourdriner specialties. Good on Construction, repairs and installations of all kinds of machinery connected with Paper Mills. Can give best of references as to my ability to get production, organize and handle help. Address, Box 4429, care Paper Trade Journal. O-20

**PRACTICAL SUPERINTENDENT**, desires position. 20 years' experience on Asbestos Papers, Felts, Building Papers and Combination Boards. Familiar with repairs, maintenance and operation of every department. Middle-aged married man. Have family. Can furnish the very best of references. Address, Box 4430, care Paper Trade Journal. O-20

**MISCELLANEOUS**

**FLOOR SPACE FOR RENT**—In Chicago. Large enough to hold about five carloads Paper Bags or Allied Lines. Located in loop, with all railroad service. Fine proposition for Chicago representative wanting to carry stock. Can furnish facilities for handling. Address, Box 4474, care Paper Trade Journal. O-13

**WILL PURCHASE FOR CASH**, small, one Machine Mill, preferably Fourdriner, within three hundred miles of New York. Must be in good condition. Send full particulars to Manitou Paper Co., Inc., Broadway, 73rd St. and Amsterdam Ave., New York City.

**WANTED**—One Toilet Machine to make rolls four and one half by four and three quarters, wide enough to handle seventy inch Jumbo Rolls. State price, condition and where can be seen. Address, Box 4509, care Paper Trade Journal. O-13.

**Do You Want Help?**

Or have you some machinery you would like to dispose of?

Try the Want Pages  
of the  
**Paper Trade Journal**

**MISCELLANEOUS**

**WANTED**—One Iron Press Roll, 75" face, 14" diameter. The Consumers Box Board and Paper Co., Little, Pa.

**A BUDGET COST SYSTEM FOR PAPER MILLS**: Price (to Non-Members) \$10. Cost Association of the Paper Industry, 18 East 41st Street, New York. O-13.

**CASH PAID** for old United States Confederate and Foreign Postage Stamps, used on letters prior to 1870. Send samples. James Hardy, 4622 Forrestville Ave., Chicago, Ill. O-A-M-1yr.

**FOR SALE**

**FOR SALE**—Roofing and Saturating Machines, 72"x36" wide. Chilled steel rolls. Also Painter Mixing Machine, Grinders, etc. Address Box 4310, care Paper Trade Journal. O-13

**FOR SALE**—9 Dryers, 28" x 52", complete with frames, felt and rolls, gears, two cone pulleys and steam connections. Address, Box 4386, care Paper Trade Journal. O-13

**FOR SALE**—One 600 H.P. Sarge-Cochrane Hot Water Softener, capacity 2,000 gallons per hour, complete with chemical solution tank, feed apparatus, filter, etc. Address, Draycott Mills, Inc., Fulton, New York. O-20

**FOR SALE**—Lannoe Pulper, in first class condition, also Sheet Cutters and 1000 lb Jones Heaters. Address, Box 4508, care Paper Trade Journal. O-13.

**HUNTING RESERVE FOR SALE**: Produced \$20,000 worth of fur in 1918. Will sell in full about 15,000 acres containing a large amount of high grade Hardwood saw timber, also vast wealth suitable for pulp and paper making. Large variety of soils, much extremely fertile. Will make one of the best stock ranches in the South. Price at inducement. Address, P.O. Box 1128, Wilmington, N.C. O-13.

**Rebuilt Paper Mill Machinery**  
-In Stock and Guaranteed  
Not Where Is and As Is

**FOURDRINER PAPER MACHINE**—One 112", one 96", one 72"

**FOURDRINER PARTS**. Pusey & Jones 137", 118", 112", 100"

**PRESS PARTS FOR PAPER MACHINES**. Pusey & Jones Bell Crank housing two sets 18" x 114", three sets 18" x 110", two sets 18" x 96", Black & Clawson Swing Arm housings with rolls.

**DRYERS** Four 48" x 111", sixteen 48" x 106", ten 48" x 68", one 84" x 67"

**MARSHALL DRIVES** 8 Black & Clawson self-contained stand with friction clutch cone pulley and 6" x 7" mortise gears. Mortise gears and pinions for Pusey & Jones Marshall drives 5" to 8" face.

**CHILLED CALENDERS** One 66" face, five roll; one 41" face, five roll

**DILLOM DOCTORS** for Machine Calenders 60" to 120" face

**SLITTERS AND WINDERS** One 120" Warren, one 80" Pusey & Jones two drum, one 108", 44", 36" Kidders

**RIELS** J. A. & Jones two drum upright 84" to 114"

**BEATERS** Six 72" x 42" Noble & Wood, four 66" x 42" Noble & Wood, equipped with three-cylinder washers; one Dilts 62" x 50" iron tub, one Jones 62" x 52", eight Horse 36" x 36"

**JORDANS**: One Wagg Majestic, three No. 2 Dillon Improved, one Large Horse, five Monarch, one Pony Monarch, two Pope Brushing Engines

**SCREENS**: Four 12-plate open-side Packer.

**STUFF PUMPS**: Deane Triplex 5" x 12", Gould Triplex 8" x 10", Sandusky Triplex 4" x 6"

**REVOLVING SHEET CUTTER**: One 104" Horse, one 84" Clark, one 74" Finlay, one 50" Hamblet Diagonal, two 42" Finlay

**WET MACHINES**: Four 72" Bagley & Sewall Hydraulic.

**FRANK H. DAVIS COMPANY**

175 Richards Avenue

CAMBRIDGE, 40, MASS.

**SHERMAN PAPER COMPANY**

Manufacturers of Roll Newsprint. H. W. &amp; W. Process

*Entire Product for 1921 Contracted*Mills at Felts Mills, Great Bend & Lefebvre, N. Y.  
Main Office, Trust Co. Building, Watertown, N. Y.Manufacturers  
of  
All Special  
Small Roll  
ProductsAdding  
Machine,  
Cash Register,  
Die Wiping,  
Hand Rolls,  
Etc., Etc.

PAPER MANUFACTURERS CO., Inc., Phila., Pa.

**E. J. KELLER COMPANY,**  
INCORPORATED

200 FIFTH AVENUE

NEW YORK

FOREIGN AND DOMESTIC  
PAPER MAKERS' SUPPLIES  
CHEMICAL AND MECHANICAL PULPS  
COTTON, JUTE AND FLAX WASTES  
EAST INDIA MERCHANDISE

JAMES ROSENBERG, Pres. L. W. BOWMALL, Vice Pres.

**AMERICAN WOODPULP CORPORATION**

FOREIGN AND DOMESTIC

**CHEMICAL and MECHANICAL  
WOODPULPS***Rags, New Cuttings, Bagging, Etc.  
Chemicals of All Descriptions*

New York—347 Madison Ave.

BRANCHES:  
Stockholm—Sweden  
Helsingfors—FinlandHelsinki—J. B. Woodruff, Inc.  
Kalamazoo—F. D. Haskell  
Dayton—R. R. Reed**Francis Hughes Company**

Packers and Graders of

**Paper Mill Supplies**

Correspondence Solicited

21st Street at Loomis, Chicago, Ill.

Private Switch on C. B. &amp; Q. Tracks

**NORWOOD  
PAPER FINISHING  
MACHINERY***Write for Information***NORWOOD ENGINEERING CO.**  
Florence, Mass., U. S. A.**PAPER and BOARDS  
ALL GRADES**Direct Mill Service to the Paper Merchant*Barton Hill Company*

INCORPORATED

501 Fifth Avenue at 42nd Street  
NEW YORK CITY

ESTABLISHED 1862

**FOURDRINIER WIRES**DANDY ROLLS  
CYLINDER  
MOLDS**CHENEY BIGELOW WIRE WORKS**  
SPRINGFIELD, MASS.**MANUFACTURERS****Paper Mill Wire Cloth, Bank  
and Office Railings and Grill Work**

**Architects and Engineers**

**CARNEY, JAMES L.**, Paper Mill Architect and Engineer, 308 North Laramie avenue, Chicago, Ill.

**CHAPMAN, C. A., Inc.**, Paper Mill Architects and Engineers, 30 Jackson Boulevard E., Chicago, Ill.

**SNOW, S. M.**, Mill Architect, Engineer, Paper and Pulp Mills, Steam and Water Power Plants, 65 Kilby street, Boston, Mass.

**Rags, Paper Stock, Etc.**

**BERLOWITZ, PAUL**, 123 Nassau street, New York. Importer of Rags, Baggins, New Cuttings.

**FLYNN, MICHAEL**, 84 Columbia street, Brooklyn, N. Y.

**GOLDSTEIN, R., & SON**, 1188 Scott Street, Baltimore, Md. Cotton Rags and Paper Stock.

**HILLS, GEO. F.**, 236 South Street, Branch House, 276 W. 25th street, N. Y.

**LIVERPOOL MARINE STORE CO.**, Liverpool, England. L. M. S. Wood Tag, Manila Rope and Star Brands (Registered).

**SIMMONS, JOHN, SONS**, Paper and Paper Stock, 28 and 30 South Marshall street, Philadelphia, Pa.

**MISCELLANEOUS****Bale Ties**

**WILSON, H. P. & H. F.**, Manufacturers of Steel Wire Bale Ties, for baling all compressible material, 544 West 22nd street, New York City.

**Boards**

**MILLER PAPER CO., FRANK P.**, high grade specialties. Boards, East Downton, Pa.

**Special Machinery**

**SWIFT, GEORGE W., JR.**, Designer and Manufacturer of Special Machinery for Manufacturing and Printing Paper Goods, Bordentown, N. J.

**BOOKS ON PAPER MANUFACTURE**

Subscriptions are being taken for the new Textbooks on the Manufacture of Pulp and Paper of the Joint Committee on Vocational Education of the Pulp and Paper Industry, a complete set of which should be owned by every firm or individual connected with the industry.

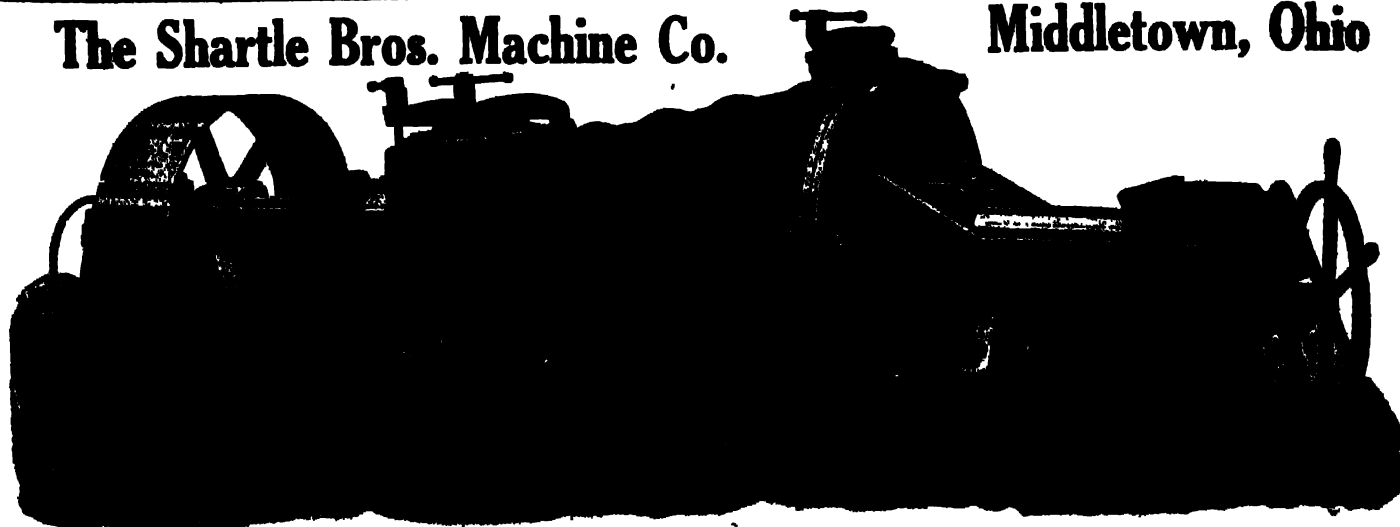
The set will be complete in five volumes. Volumes I and II deal with arithmetical operations, elementary mathematics, drawings, etc. Volumes III, IV and V, to be issued shortly, will deal with pulpwoods and their preparation; manufacture of pulp; analytical methods; and paper manufacture in all its aspects.

Volumes I and II are now on sale at \$5.00 a volume. In the selection of classroom problems bearing on the principles and practice of pulp and paper manufacture they represent the highest standard in textbook publishing.

Orders, with remittances, will be filled by the Technical Association of the Pulp and Paper Industry, 18 East Forty-first Street, New York

**CENTRAL MANUFACTURING COMPANY****THE QUICK SERVICE HOUSE****KALAMAZOO, MICH.**

Manufacturers of

**High Grade Brass and Bronze Screen Plates and Dandy Rolls****OLD PLATES  
CLOSED AND RECUT****DANDY ROLLS AND  
WATER MARKING****Secure Our  
Prices****We Can  
Please You****The Shartle Bros. Machine Co.****Middletown, Ohio**

**FREDERICK L. SMITH**

21 EAST 40TH STREET, NEW YORK  
**PULP AND PAPER MILL  
 ENGINEER**

**V. D. SIMONS**

**INDUSTRIAL ENGINEER**

Pulp and Paper Mills, Hydro-Electric and Steam Power Plants  
 Electrification Paper Mill Properties  
 39 S. La Salle St., Chicago

**HARDY S. FERGUSON CONSULTING ENGINEER**

Member AM. SOC. C. E., Member AM. SOC. M. E.,  
 Member Eng. Inst. Can.

200 FIFTH AVENUE, NEW YORK CITY  
 Paper, Pulp and Fibre Mills, Including Building and Complete  
 Mechanical Equipment, Water Power Development, Dams,  
 Storage Reservoirs and Other Hydraulic Structures,  
 Examinations, Reports, Estimates of Cost, Designs,  
 Specifications, Valuations

**GEORGE F. HARDY**

M. AM. SOC. C. E., M. AM. SOC. M. E., M. ENG. INST. CAN.

*Mill Architect and Consulting Engineer*

Langdon Building, 309 Broadway, New York  
**SPECIALTY:** Paper, Pulp and Fibre Mills, Water Power Develop-  
 ments, Steam Power Plants, Plans and Specifications  
 Evaluations, Reports, Consultation  
 Cable Address "Hardistock," A B C 5th Edition, Bedford, McNeill  
 Western Union—Bentley's.

**J.H. WALLACE  
 & COMPANY.**  
 TEMPLE COURT BUILDING  
 NEW YORK CITY, U.S.A.  
 CABLES. TRIPLEC. N.Y.

**PULP  
 PAPER  
 AND  
 POWER  
 PLANTS**

**ENGINEERS  
 & CHEMISTS**  
 INDUSTRIAL DESIGN  
 PLANT IMPROVEMENT  
 LABORATORY TESTS

**JOHN F. CARRIGAN**

Industrial Power Engineering, Cunard Bldg., Chicago

Estimates, Reports  
 Detail Plans

Construction of New and  
 Remodeling Old Plants

Modern Steam Installations  
 Electrifying and Motorising  
 Complete Plants

**Manufacturers of Carrigan Hand Stokers**

**Timber Lands Bought and Sold.  
 Timber and Pulp Wood Estimates.**

**R. R. BRADLEY,**  
*Consulting Forester*

58 Telegraph Building, Hospital St., Montreal, P. Q.

**GEORGE F. DREW**

**MILL ARCHITECT AND ENGINEER  
 BRUNSWICK, MAINE**

For the past 22 years Chief Engineer for the Fajepocot Paper Co.

**SPECIALTY:** Pulp, Paper and Saw Mills

Cotton, woolen, worsted, cordage, silk mills, and their equipment.  
 Appraisals, adjustments.

**THOMAS L. TOMLINES & SON**

**CONSULTING ENGINEERS**

ASSOC. M. AM. SOC. C. E.; 317-319 CITY BANK BLDG.,  
 M. AM. SOC. M. E. SYRACUSE, N. Y.  
 Paper, Pulp and Fibre Mills, Hy- Steam Power Plants, Plans and  
 draulic Developments, Hydro- Specifications, Efficiency  
 Electric Plants Engineering  
**CONSULTATION AND REPORTS**

**H. B. PRATHER**

**CONSULTING ENGINEER**

**CONSULTATIONS      REPORTS      ESTIMATES**

Complete Designs Pulp and Paper Mills—Steam and Electric  
 Power Plants—Equipments

600 ROCKEFELLER BLDG., CLEVELAND, OHIO

**WILLIAM T. FIELD**

*Consulting Engineer*

206 Broadway,  
 New York, N. Y.

Flower Bldg.,  
 Watertown, N. Y.

**DESIGNS**

**ESTIMATES**

**REPORTS**

**VITALE & ROTHERY**

**FOREST ENGINEERS**

527 Fifth Avenue

New York, N. Y.

**TIMBERLAND SERVICE**

Estimates

Maps

Graphic Methods

**JAMES W. SEWALL, Forest Engineer**

Old Town, Me. Sanford, Fla. Munsey Bldg., Washington, D. C.  
*Largest Cruising House in America*

**HERBERT S. KIMBALL**

M. Am. Soc. C. E.

**CONSULTING ENGINEER**

79 Milk Street, Boston 9, Mass.

Investigations and reports relating to the pulp and paper industry Special atten-  
 tion to the design of chemical equipment in Sulphite and Soda mills. Paper  
 machine room construction and ventilation, plans for buildings and equipment.

**SANFORD RILEY STOKER CO.**  
 WORCESTER, MASS

Makers of

**RILEY  
 STOKERS**

BOSTON

NEW YORK  
 CINCINNATI

PHILADELPHIA  
 CHICAGO



PITTSBURGH  
 ST. PAUL

"A type to meet every stoker need"

**MURPHY IRON WORKS**  
 DETROIT, MICH

Makers of

**MURPHY  
 FURNACES**

BUFFALO

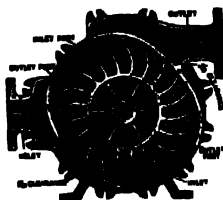
DENVER

CLEVELAND

THE  
**MANAGEMENT ENGINEERING AND DEVELOPMENT Co.**  
7TH FLOOR CITY NATIONAL BANK BLDG.,  
DAYTON, OHIO.

DESIGN, CONSTRUCTION AND OPERATION  
OF  
PULP, PAPER AND FIBRE MILLS  
WATERPOWER DEVELOPMENT  
STEAM POWER PLANTS.

PLANS AND SPECIFICATIONS  
EVALUATIONS AND REPORTS  
•• CONSULTATIONS ••



"HYTOR" Air Compressors,  
VACUUM PUMPS and  
DRYER EXHAUST UNITS.  
THE NASH ENGINEERING CO.  
Wisen Point Road, SOUTH NORWALK, CONN.

**The Northern Wood Supply Co.**  
GENERAL  
**Pulpwood Dealers**

Heavst, Ontario, Canada

*Correspondence Invited*  
ALL CLASSES OF PULPWOOD

**STEBBINS ENGINEERING & MFG. CO.**  
WATERTOWN, NEW YORK, U. S. A.

*Manufacturers of*

STEBBINS ACID SYSTEMS  
DIGESTER LININGS,  
BRONZE, LEAD AND  
IRON FITTINGS, SUL-  
PHUR MELTERS, BURN-  
ERS, COMBUSTION  
CHAMBERS AND RE-  
CLAIMERS, BLEACHING  
SYSTEMS.

**SPECIALTIES**

We design, build, com-  
pletely equip and put into  
operation

**PAPER, SULPHITE  
AND SODA PULP  
MILLS**

PACIFIC COAST  
REPRESENTATIVES  
**SCOTT & MORGENIER**  
184 Bacon Bldg., Oakland, Cal.

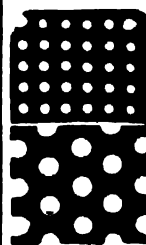
**SLITTERS and SPECIAL MACHINES**

for use in paper industry

**C. BENNINGHOFEN & SONS**

Hamilton, Ohio

Send us your requirements regardless of what they may be.

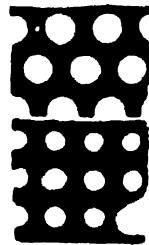


**MANHATTAN  
PERFORATED METAL CO.**  
Office and Works: 237-239 Centre St.,  
New York

**PERFORATORS**

of COPPER, BRASS, ZINC, ALUMINUM,  
TIN, STEEL, IRON, Etc.

Write for Copper, Brass, Tin or  
Aluminum Catalog  
Brass and Copper Centrifugal and  
Juice Strainer Plates a Specialty



**FOXBORO**  
Foxboro Records help you to improve your prod-  
uct. Tell us your requirements. We will tell you  
how we can help you. Ask for Bulletin RN-134.  
The Foxboro Co., Inc., Foxboro, Mass.

**RECORDS**

110-5

**BELLE ALKALI COMPANY, Belle, W. Va.**  
**PURE CHLORINE** **BELLE** **CAUSTIC SODA**  
In cylinders and tanks **BRAND** 76%—Solid and Flake

**Arnold Hoffman & Co. Inc., Sole Agents,** PROVIDENCE BOSTON NEW YORK  
PHILADELPHIA CHARLOTTE

**R. L. STEVENS, Jr., Woolworth Building, New York**

EXCLUSIVE EASTERN REPRESENTATIVE OF THE RHINELANDER PAPER COMPANY

Glassine, Greaseproof, Manifold Parchment, Dry Finish Butchers', Machine Glazed Sulphites, 10 to 40 lb. basis, Special papers for Creping and Waxing, together with other Specialties; general line of Wrappings.

**LAWRENCE**  
**GROCERS' BAGS**



Old Style Squares—Prompt Shipment—  
Improved Self-opening—Late October Shipment  
The Lawrence Bag Company, Miamisburg, Ohio

**LAWRENCE**  
**GROCERS' BAGS**

## The Black-Clawson Co.

Hamilton, Ohio

Builders of All Types of Paper Making  
Machines and Machinery

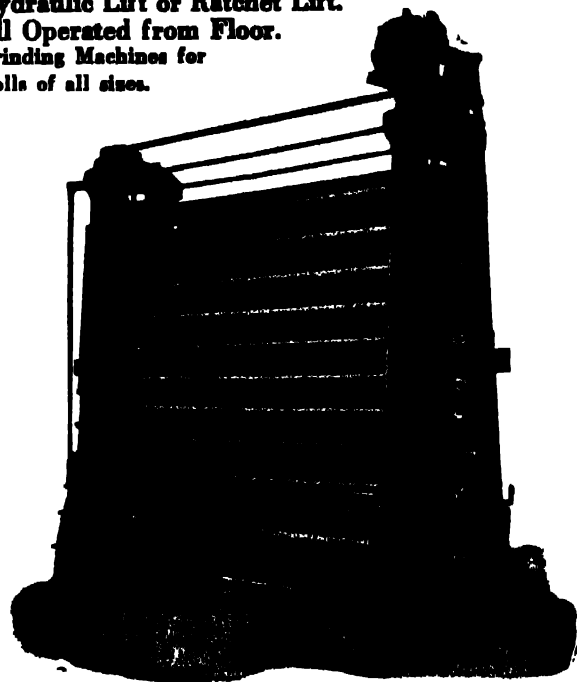


for  
**PAPER**  
and  
**PULP**  
**MILLS**

*Successful machines in operation are proof  
our work is built right.*

## CALENDERS

Furnished Complete, with Electric Motor Lift.  
Hydraulic Lift or Ratchet Lift.  
All Operated from Floor.  
Grinding Machines for  
Rolls of all sizes.



**LOBDELL CAR WHEEL CO.**  
Wilmington, Del., U. S. A.

## FARREL

**Roll  
Grinders**



For the sake of your  
product regrind your  
used worn rolls on a  
Farrel roll grinder—a  
heavy, sturdy instrument  
of precision—we have  
made and used them our-  
selves for years.

*Farrel calen-  
ders and chilled  
rolls are known  
for the highest  
in quality.*

*We are the  
largest makers  
in the world  
of these prod-  
ucts*

*Write for Bulletin L-755*

Established 1848

**Farrel Foundry & Machine Company**

Ansonia, Conn., U. S. A.

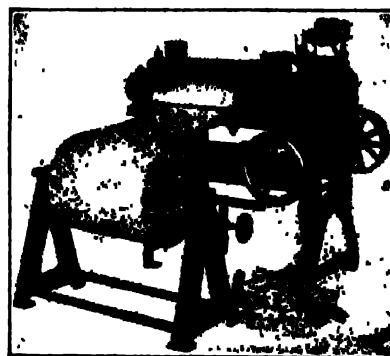
Branch Plant: Buffalo, N. Y.

## Dietz Toilet Paper Machinery

AND LATEST IMPROVED PATENTED

### Automatic Tube Machines

For Making Tubes for Toilet  
Paper Rolls, Paper Towel Rolls



Patented Feb 22, 1916, May 18, 1920.

Capable of pro-  
ducing 3,600

**Toilet  
Tubes**

per hour direct  
from roll.

**Towel  
Tubes**

are made at rate  
of 1,800 per hour.  
Substantially built  
and fully guaran-  
teed.

Toilet Paper Machines for making Toilet Rolls with or without  
perforations and machines for making Sanitary Crêpe Paper  
Towels, Punch Presses for Sheet Toilet Paper, Drop Roll Slitters,  
Sitting and Rewinding Machines, Side and Center Seam Mer-  
chandise Envelope Machines, Photo Mount Beveling Machines,  
Candy Bag Machines, Punch Presses for Playing Cards, Rotary  
Card Cutting and Collating Machines, Etc.

**DIETZ MACHINE WORKS**

126-128 Fountain Street

PHILADELPHIA, PA.

Corner Waterline St., Below Diamond St., Bet. Front and 2d Sts.

# BAKER MANUFACTURING CORPORATION

Formerly Baker & Shevlin Co.

Manufacturers of

A general line of paper and pulp making machinery including:

Automatic Magazine Grinders (owners of all U. S. patents)

Bronze and White Metal Valves for Sulphite Mills

Bronze and White Metal Pipe and Fittings for Sulphite Mills

Centrifugal Screens—Horizontal and Vertical

Centrifugal Pumps

C. Bache Wieg Barking Drum

Cylinder Moulds

Decker Machines or Pulp Thickeners

Feeney Automatic Stock Regulator

Kneaders

Monarch Diaphragm Screen

Paper Making Machines—Cylinder and Fourdrinier

Paper Machine Screens—Horizontal Rotary

Pulp Refiners

Ramsey Patent Grinder Valves

Sliver Screens

Wet Machines

Winder Shafts

Worm Washers

Worm Knotters

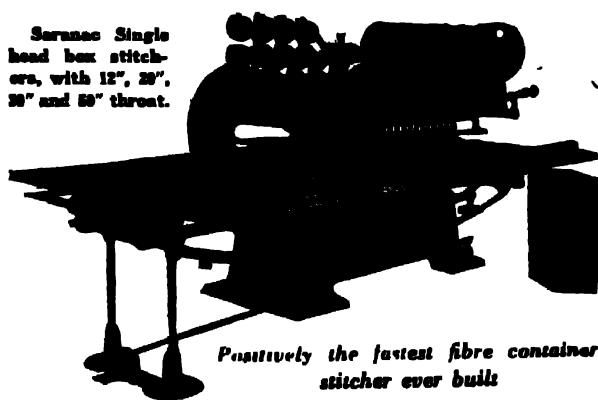
Baker Manufacturing Corporation

Saratoga Springs, N. Y.

25 to 40 shipping containers per minute can be made on a

## Saranac Automatic Multiple Head Stitcher

Saranac Single head box stitchers, with 12", 20", 28" and 36" throat.



*Positively the fastest fibre container stitcher ever built*

IT is equipped with twelve stitching heads, so that any number from 1 to 12 staples can be driven at one time. Either a single or double row of staples, or single row with the tie stitch, are automatically driven. It takes less than five minutes to change from the largest to smallest size containers.

*Write for Full Particulars.*

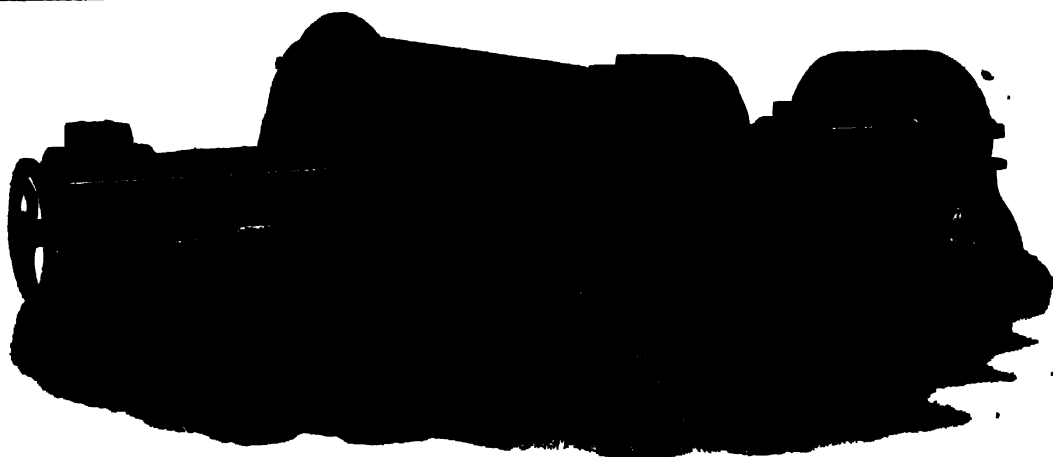
We also manufacture Bottom Sealing Machines.

**Saranac Machine Company**

Benton Harbor, Michigan

**WE MAKE  
BEATERS AND  
JORDANS OF  
QUALITY**

**SIX SIZES OF  
JORDANS,  
BEATERS,  
FROM ¾ LBS.  
TO 3000 LBS.**

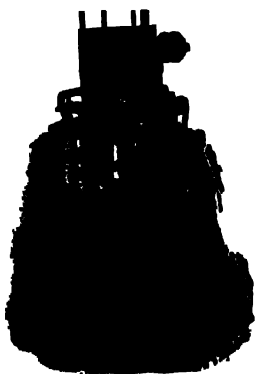


**The Noble & Wood Machine Co., Hoosick Falls, N. Y.**

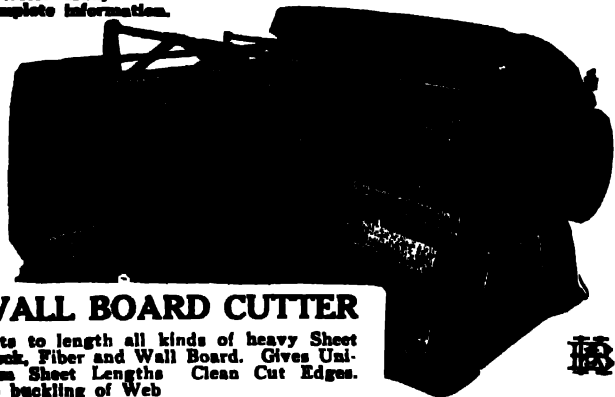
**SUPERIOR CHEMICAL CO.**

JOLIET, ILLINOIS

Manufacturers

**PAPER MAKERS' and FILTER  
ALUM****GRISSINGER  
Patented  
AUTOMATIC  
TUBE  
MACHINE**

Wire Stitched Tube

TOILET PAPER  
MACHINERYGRISSINGER MACHINE WORKS  
PHILADELPHIA, PA.{ June 24, 1913  
Patented { August 10, 1915Write today for  
complete information.**WALL BOARD CUTTER**Cuts to length all kinds of heavy Sheet  
Stock, Fiber and Wall Board. Gives Uni-  
form Sheet Lengths Clean Cut Edges.  
No buckling of Web

M. D. KNOWLTON CO., 22 Elizabeth St., Rochester, N. Y., U. S. A.

WILLIAM B. DILLON

**DILLON & BARNES**

Paper Mill Products and Supplies

52 VANDERBILT AVENUE

NEW YORK

Telephone, 7353 Murray Hill

**FRANKLIN PAPER CO. HOLYOKE,  
MASS.**

Manufacturers of

**Index Bristols, White Bristol Blanks, Etc.**

Established 1895

**DANIEL M. HICKS**

(INCORPORATED)

**PAPER MILL  
SUPPLIES**

200 Fifth Ave., New York

**ALUM**

FOR THE PAPER MAKER

Manufactured by

The Jarecki Chemical Co.

QUALITY

SERVICE

Sole Selling Agents

**ISAAC WINKLER & BRO.**  
CINCINNATI :: :: NEW YORK**ATTERBURY BROS.**

(INCORPORATED)

WOOD PULP, RAGS AND PAPER

STOCK, FRENCH CASEINE

145 NASSAU STREET (POTTER BLDG) NEW YORK

**Penn Paper and Stock Company**

PACKERS OF ALL GRADES OF

**WASTE PAPER**

240' N. FRONT STREET

PHILADELPHIA

**The Pulp and Paper Trading Co.**

21 East 40th Street

New York City

**DEALERS IN DOMESTIC CHEMICAL AND  
MECHANICAL PULPS AND PAPER**

AGENTS FOR

J. &amp; J. Rogers Company, Ausable Forks, N. Y.

Ware Coated Paper Company, Ware, Mass.

Procter &amp; Gamble Distributing Co.

Mills at Augusta, Georgia, and Memphis, Tenn.

Canadian Kraft Limited, Three Rivers, Canada

Dealers in Wayagamack Kraft Pulp

**EASTERN AGENTS of Sulphite Pulp. Made by  
Fort Huron Sulphite & Paper Co., Fort Huron, Mich.**

**WE** specialize in durable Fourdrinier Wires and Cylinder Wires in any metal desired up to and including 120 mesh in plain woven, double warp, triple chain, and twisted weaves.

Save two-thirds the cost and three-quarters of the expense of putting on brass and bronze wires by using our nickel alloy wires.

**Joseph O'Neill Wire Works**

Port Chester, N. Y.

Established 1906

## Papier-Zeitung

Berlin SW 11 (Germany)

Founded by Carl Hofman, 1876

appears twice a week

Covers the whole paper trade (paper making, transforming, stationery). More than 12,000 bonafide subscribers all over the world.

Subscription: 4 Dollars

Fitchburg, Mass.,  
U. S. A.

## UNION SCREEN PLATE COMPANY

Lanoxville, P. Q.  
Canada



**UNION BRONZE** (Best phosphorized Cast Metal) **SCREEN PLATES** **ROLLED BRASS** (Union Quality)

Old Plates RECLOSED and RECUT to accurate gauge

**UNION BRONZE SCREWS** for Screen Plates

**UNION BRONZE SUCTION BOX PLATES**

Immediate Delivery of the Largest Orders. Satisfaction Guaranteed

**THE UNION-WITHAM SCREEN PLATE VAT AND FASTENERS**

THE ORIGINAL  
Over One Thousand in Successful Operation

THE BEST  
Recommended by Screen Makers



# ROGERS WET MACHINE

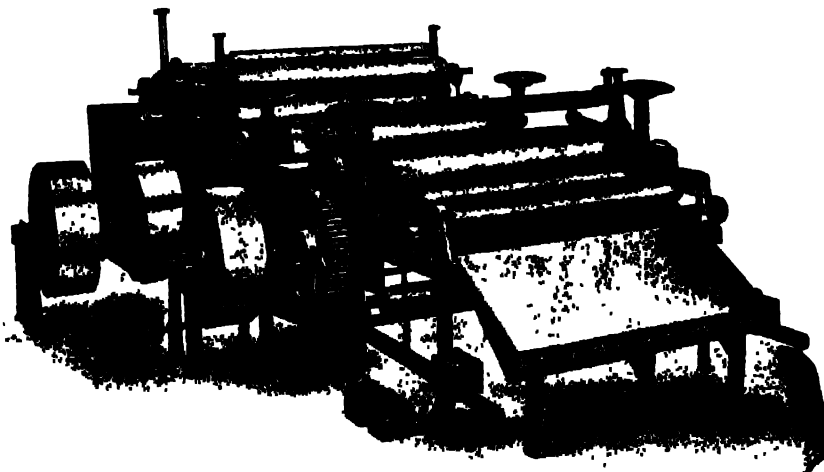


Illustration Shows Rogers Double Press Wet Machine

FOR CHEMICAL PULP—including Sulphite, Sulphate, Soda, also Cotton and Waste Paper fiber.

TYPES—Single and Double Press, 72" wide.

CAPACITY—either type 25-30 tons air dry stock per 24 hours.

SHEETS produced by the Double Press Machine uniformly 48% dry. By the Single Press Machine uniformly 40% dry. There is no fold to contain excessive moisture. Sheets are handy size, 33"x36", and are folded once into most convenient bundles for storage, for the beater or for shipping. By this great capacity, high dry test, small amount of floor space per ton pulp produced, exceedingly low cost for labor and maintenance, users are assured that the machine will completely pay for itself within one year, and are promised a handsome return on their investment.

**WORKMANSHIP AND MATERIAL GUARANTEED.**

**GLENS FALLS MACHINE WORKS**

**Glens Falls, N. Y.**

*Try Our Split Cams for Your Flat Screens*

See our exhibit at the Seventh National Exposition of Chemical Industries, 8th Coast Artillery Armory, New York, Week of September 12th.

Are you finding difficulty in properly regulating the pressure on your guard-board? A Suction Couch roll will entirely eliminate not only the guard-board but the top couch roll, jacket, arms, levers, weights and all their inherent troubles as well.

## THE SANDUSKY FOUNDRY & MACHINE COMPANY

SANDUSKY, OHIO

13

For reliable running and average long life

### Lindsay Fourdrinier Wires

ARE UNSURPASSED

We make them for the largest and fastest machines.  
Cylinder Wires all sizes.

The Lindsay Wire Weaving Co.  
COLLINWOOD STA. CLEVELAND, OHIO

WHEN IN NEED OF

Fly Bars and Bed Plates  
Beater Valves and Hydrants  
Beater Rolls or Repair Parts  
Beating Engines

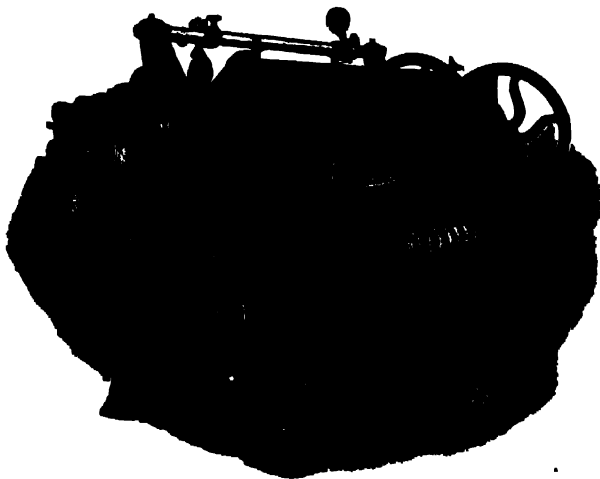
WRITE US

DAYTON BEATER AND HOIST CO.  
DAYTON, OHIO

2

## Paper Cutters

Single, Duplex and Diagonal



Cutter Knives

Patent Top Slitters

### HAMBLET MACHINE CO.

Lawrence, Mass.

## CALDWELL SERVICE



HALF a million dollars worth of well-selected stock, constantly maintained, and an organization keyed up to the theory that plant efficiency is measured by the number of orders shipped on the day of receipt, accounts for Caldwell service. Let us figure on your requirements.

H. W. CALDWELL & SON CO.

LINK-BELT COMPANY, OWNER  
CHICAGO, 17th Street and Western Avenue  
NEW YORK, 50 Church St.



## Van Noorden Skylights

Reflects by the Sun  
Means twice the work done.



are as

### Indispensable

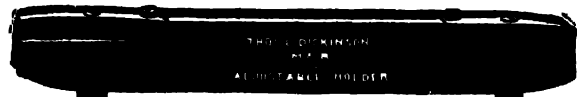
To a modern Paper Mill as its important inner equipment. "DAYLITE" means Nature's light without weather or condensation drip.

E. VAN NOORDEN & CO. 103 Magazine St. Boston, Mass.

## Job Lots, Rejections, Side Rolls Wanted

SPOT CASH paid for jobs in bond paper, white or colors, any grade that will cut down to 11x17, any weight. Send samples, with lowest spot cash prices. No lot too small, and none too large.

MIDWEST PAPER CO., 712 Federal Street, Chicago, Ill.



Special Shaped Carbon, Black Diamond POINTS FOR TURNING Paper, Cotton Chilled Iron and Hardened Steel Calendar Rolls, Hard Rubber, Fibre, etc.

Manufactured by THOS. L. DICKINSON, 26 Gold St., NEW YORK

Successor to John Dickinson, Established 1796.

Agents for Great Britain, C. W. BURTON, GRIFFITHS & CO., Ludgate Square, London.

## FOURDRINIER WIRES

Cylinder Moulds and Dandy Rolls Made and Repaired  
Lettering and Monograms for Watermarks

THOMAS E. GLEESON, Inc.

Manufacturers of Wire Cloth of All Descriptions

411-413 John Street, East Newark, N. J.

Specialty—The Finest Wires for Tissue and Fine Grade Papers

FOREIGN and DOMESTIC  
Paper Stock  
New Cuttings  
and Rags

**CASTLE, GOTTHEIL & OVERTON**

Jute Stock  
Sizing, Sulphite  
and Soda Pulps

200 FIFTH AVE. NEW YORK

## "WATERBURY" Felts-Jackets



ORISKANY, N. Y.

OUR TIGHT FITTING, DIAMOND "W" JACKETS  
WILL NOT LICK UP AT ANY SPEED

1869 {MADE ONLY BY} 1921  
GUARANTEED BY

H. WATERBURY AND SONS COMPANY, ORISKANY, N. Y.

## WINDERS AND REWINDERS

SAMUEL M. LANGSTON COMPANY  
CAMDEN, N. J.

## "DRAPER" FELTS

For Any Grade of Paper or Pulp

ARE GUARANTEED

To Give Entire Satisfaction

MANUFACTURED BY

DRAPER BROS. CO., CANTON, MASS.

## Salomon Bros. & Co.

IMPORTERS OF

All Grades of Rag and Paper Stock

200 FIFTH AVENUE, NEW YORK

Cotton Waste : Linters : Ramie

## CAMACHINE

SLITTERS AND WINDERS

CAMERON MACHINE CO. BROOKLYN, N. Y.

ESTABLISHED 1861

IRA L. BEEBE

CYRUS E. JONES

IRA L. BEEBE & CO.

132 Nassau St., New York


IMPORTERS AND DEALERS IN



WOOD PULP

## CLASSIFIED INDEX TO ADVERTISEMENTS

	Page		Page		Page
<b>ADDING MACHINE ROLLS.</b>		<b>CASEIN.</b>		<b>FELTS AND JACKETS (Cont'd.).</b>	
Paper Manufacturers Co.	62	Casco Mfg. Co.	65	Orr Felt & Blanket Co.	59
<b>AGALITE.</b>		<b>CHEMICALS, COLORS, ETC.</b>		Shuler-Hemphingsten Co.	76
Union Talk Co.	75	Arnold, Hoffman & Co., Inc.	65	Waterbury Felt Co.	71
U. S. Talk Co.	75	Heller & Merz Co.	12	Waterbury & Sons Co.	71
<b>ALUM.</b>		Du Pont de Nemours & Co.	33	<b>FILTERING SYSTEMS.</b>	
The Kalkbrenner Corp.		Kuttruff Pickhardt & Co.	Front Cover	Norwood Engineering Co.	6
Pennsylvania Salt Mfg. Co.	76	Newport Chemical Works	7	<b>FLOOR COVERINGS.</b>	
Superior Chemical Co.	68	Sandoz Chemical Works, Inc.	8	L. Sommeburn & Sons	—
Winkler Bros., Inc.	68	C. K. Williams & Co.	76	<b>FLOOR HARDENER (Concrete).</b>	
<b>ALUMINUM SULPHATE.</b>		<b>CLAY.</b>		L. Sommeburn & Sons	—
Aluminum Chemical Co.		Atterbury Bros.	68	<b>FOURDRINIER WIRES.</b>	
<b>ARCHITECTS AND ENGINEERS.</b>		John W. Higman Co.	76	Appleton Wire Works	76
John F. Carrigan	64	Star Clay Company.	76	Buchanan Bolt & Wire Co.	59
George F. Drew	64	<b>COAL MINING.</b>		Cable Fastener Wire Mfg. Co.	76
Hardy S. Ferguson	64	Empire Coal Mining Co.		Cheney, Higelow Wire Works	62
William T. Field	64	<b>COGS.</b>		Eastwood Wire Mfg. Co.	76
George F. Hardy	64	N. P. Bowsher Co.	75	Thomas E. Gleason	71
Herbert S. Kimball	61	<b>COMPRESSORS (AIR).</b>		Lindsay Wire Works	70
Management Engineering and Development Co.	65	The Nash Engineering Co.	65	Jos. O'Neill Wire Works	69
H. B. Prather	64	<b>CORDAGE.</b>		The W. S. Tyler Company	75
V. D. Simons	64	Columbian Rope Co.		<b>FURNACES (Automatic).</b>	
E. L. Smith	64	<b>CUTTING MACHINERY.</b>		Murphy Iron Works	64
Stebbins Engineering Co.	65	M. D. Knowlton Co.	68	<b>GAUGES (Pressure, Indicating and Recording).</b>	
Thomas E. Tomlins & Son	64	<b>DIE CUTTERS.</b>		Hristol Co., Inc.	45
Vital & Rothery	61	Hogson & Pettis Mfg. Co.	6	M. J. C. Co., Inc.	51
Joseph H. Wallace & Co.	61	Independent Die Co., Inc.	6	M. J. C. Co., Inc.	65
<b>ASBESTINE PULP.</b>		<b>DIGESTERS.</b>		<b>GUMMING AND GLUING MACHINERY.</b>	
International Pulp Co.	Front Cover	American Welding Co.	—	Potdevin Machine Co.	5
<b>BALL BEARINGS.</b>		M. W. Kellogg Co.	—	<b>HEATERS.</b>	
S. K. F. Industries, Inc.		<b>DRIVES, SILENT CHAIN.</b>		Gordon Co., Inc. Robert	
<b>BEATING ENGINES.</b>		Morse Chain Co.	75	<b>IRON AND STEEL PRODUCTS</b>	
Beloit Iron Works	31	<b>DRYER EXHAUSTS.</b>		Brown Wakes Co.	7
Beloit Engineering Co.		The Nash Engineering Co.	65	<b>KNIVES, ETC.</b>	
Dayton Heater & Hoist Co.	70	<b>DRYING SYSTEMS.</b>		Bolton & Sons, J. W.	9
Dayton Machine Co.	71	Lunsworth Co.		Dowd Knife Works	
Dills Machine Works, Inc.	71	Owen Coal Heater & Purifier Co.	12	Machinery Co. of America	
Downington Mfg. Co.	71	W. I. Pickles	12	<b>LUBRICANTS.</b>	
Emerson Mfg. Co.	75	<b>DYES, ANILINE.</b>		Vacuum Oil Co.	—
Mills Machine Co.	61	Calco Chemical Co.	12	<b>MICROMETERS.</b>	
Noble & Wood Machine Co.	62	Heller & Merz	12	L. F. Gady & Co.	—
Valley Iron Works Co.		National Aniline & Chemical Co.	13	Lehigh Paper Mills, Inc.	—
<b>BELT LACING, STEEL.</b>		The White Tar Aniline Corporation		<b>MILL COGS.</b>	
Flexible Steel Lacing Co.		<b>DYE STUFFS.</b>		N. P. Bowsher & Co.	75
<b>BELTING.</b>		L. L. du Pont de Nemours & Co.	33	<b>MOTORS.</b>	
Cincinnati Rubber Mfg. Co.		<b>ELECTRIC EQUIPMENT.</b>		B. E. Peckin & Son, Inc.	11
Goodyear Tire & Rubber Co.		General Electric Co.		<b>OILS AND GREASE.</b>	
The Rosendin Reddaway Co.		<b>ELECTRIC HOISTS.</b>		Vacuum Oil Co.	—
R. D. Skinner & Co., Inc.		Shepherd Electric Crane & Hoist Co.	19	<b>PACKING.</b>	
<b>BLASTING POWDERS.</b>		<b>ENGINEERS.</b>		Jenkins, Inc.	71
Heracles Powder Co.		Samuel M. Green Co.	41	<b>PAINTS &amp; VARNISHES.</b>	
<b>BOILERS.</b>		L. O. Ross Engineering Corp.		Du Pont de Nemours Co. L. I.	—
Horne Boiler Co.	1	<b>ENVELOPE MACHINES.</b>		<b>PAPER BAG MACHINERY.</b>	
<b>BRONZE ROLL JACKETS.</b>		Potdevin Machine Co.	57	Lecher Machine Co.	—
Sandusky Laundry & Machine Co.	70	L. I. Smith Machine Co.	—	Potdevin Machine Co.	—
<b>BUCKETS (Elevator)</b>		<b>FELTS AND JACKETS</b>		<b>PAPER BAG MANUFACTURERS.</b>	
Hendrick Mfg. Co.	—	Albany Felt Co.	10	Consolidated Paper Bag Co.	7
<b>CALENDER ROLLS</b>		Appleton Woolen Mills	5	Lawrence Day Co.	—
Farral Laundry & Machine Co.	66	L. Broth & Co.	Front Cover	Schorsch & Co.	60
Lobdell Car Wheel Co.	66	Draper Bros. Co.	—	<b>PAPER BOX BOARDS.</b>	
Norwood Engineering Co.	67	Enochburg Duck Mills	2	C. L. LaBouffaux Co.	10
Perkins & Son, Inc. B. I.	11	F. C. Hawek & Son	—	<b>PAPER CUTTERS.</b>	
Textile Finishing Machinery Co.	1	Knox Woolen Co.	—	Hambler Machine Co.	71
<b>CARBON TOOLS</b>		Lockport Felt Co.	—	McIntosh & Co. L. I.	—
Thomas L. Dickinson	7				



**NOW IS THE TIME TO BUY OUR RAW MATERIALS**

Out of our forty different grades of paper stock you are assured a steady, reliable source for procuring raw materials in practically every branch of paper making.

Having specialized for 35 years in this one field you can depend upon a clean, well-packed uniform product throughout, fulfillment of delivery promises, and because of our output of 300 tons daily, big tonnage at all times. Write us your wants.

General Offices: 218 So. Michigan Ave., Chicago, Ill.  
Long Distance Phones, Harrison 2248 and 1557

**Mendelson Bros. Paper Stock Co.,**

# "BIGGS" ROTARY BLEACHING BOILERS

have been regarded as standard equipment for  
the last 34 years

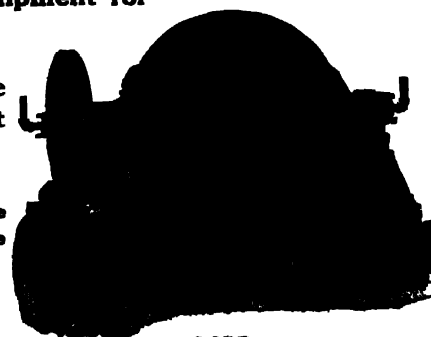


CYLINDER

May we not figure  
with you on your next  
installation?

Steel Storage and Pressure  
Tanks for every purpose

Write for prices



GLOBE

**The Biggs Boiler Works Company, Akron, Ohio, U. S. A.**

## CLASSIFIED INDEX TO ADVERTISEMENTS

PAPER DEALERS.		Page	PAPER STOCK (Cont'd.).		Page	SPICING TISSUE.		Page
M. M. Finch & Co.	Front Cover	71	Liam-Smith Co.	Front Cover	57	Sergeant Co., E. M.	—	—
R. F. Hammond...	Front Cover	71	PAPER TESTERS.		57	STEAM SPECIALTIES.	43	—
Mills & Paper Co.		71	Ashcroft Mfg Co.		57	Crane Co.	—	—
PAPER EXPORTERS.			Foreign Paper Mills, Inc.		11	Open Coil Heater & Purifier Co.	—	—
A. M. Capen's Sons, Inc.		76	B. I. Perkins & Son, Inc.		11	STITCHING MACHINERY.	67	—
Hudson Trading Co.		12	PAPER TUBE MACHINERY.		66	Satanac Machine Co.	—	—
Interstate Pulp & Paper Co.	Front Cover	3	Ditz Machine Works		68	SULPHITE PULP ("Kraft" Soda).	—	—
Parsons Trading Co.		3	Gussinger Machine Works		57	Dryden Pulp & Paper Co., Ltd.	—	—
Parsons & Whittemore		4	PAPER WAXING MACHINERY.		66	SULPHITE BLEACHED AND	—	—
W. M. Pringle Co., Inc.		75	Potlvin Machine Co.		66	UNBLEACHED.	4 and 27	—
Storm & Bull		11	PERFORATING MACHINES.		79	I. Andersen & Co.	35	—
PAPER MANUFACTURERS.			Ditz Machine Works		9	The Borregaard Co., Inc.	3	—
American Coating Mills		13	PERFORATED METAL.		51	Brown Company	37	—
Bayless Mfg Co.		13	Harrington & King Perforating Co.		65	Canadian Robert Dullin Co.	3	—
Brown Company		13	Hendrick Mfg Co.		11	Craig Becker Co., Inc.	57	—
Collins Mfg Co.	Front Cover	68	Charles Mundy & Sons		6	Dryden Pulp & Paper Co.	68	—
Diamond State Fibre Co.		47	Manhattan Perforated Metal Co.		75	Parsons Pulp & Lumber Co.	—	—
Eaton-Bickman Co.		67	O. L. Bartlett		75	Price & Pierce, Ltd.	—	—
Fort Howard Paper Co.		67	Castle, Gottlieb & Overton		65	Pulp and Paper Trading Co.	—	—
Franklin Paper Co.		67	PULP STONES.		65	SULPHUR.	—	—
Hammermill Paper Co.		67	International Pulp Stone Co.	Front Cover	75	Texas Gulf Sulphur Co.	13	—
Howard Paper Co.		67	Lombard & Co.		65	Union Sulphur Co.	2	—
Mississippi Pulp & Paper Co.		67	PULPWOOD.		65	TANKS.		—
Mountain Mill Paper Co.		67	The Northern Wood Supply Co.		65	W. E. Caldwell Co.	—	—
Nucra Paper Company		67	PUMPS.		65	New England Tank & Tower Co.	75	—
New York and Maryland Pulp & Paper Co.		67	Frederick Iron & Steel Co.		65	Stearns Lumber Co.	75	—
Poland Paper Co.		67	Havon Pump & Blower Co.		65	TAPE MOISTENERS.		—
Sherman Paper Co.		67	PUMPS (Vacuum).		65	Liberty Paper Co.	—	—
Stratford Paper Co.		67	The Nash Engineering Company		65	TIMBER ESTIMATES.		—
Wasson Sulphate Fibre Co.		67	RAG CUTTERS.		65	R. R. Bradley	14	—
PAPER AND PULP MACHINERY.			B. I. Perkins & Son, Inc.		11	James W. Sewall	64	—
Bagley & Scwell Co.		67	Taylor Sides & Co.		5	TRANSMISSION MACHINERY.		—
Baker Mfg Corp.		67	REAM CUTTERS.		65	H. W. Caldwell & Sons Co.	70	—
Belont Iron Works		67	Geo. I. McLaughlin Co.		65	Reves Pulley Co.	49	—
Bird Machine Co.		67	RECORDING INSTRUMENTS		65	TURBINES.		—
Black Clawson Co.		67	Bristol Company		65	S. M. Smith Co.	—	—
Clark-Aiken Co.		67	Loxton Co. Inc.		65	TWINES.		—
Frank H. Davis		67	ROBIN SIZE.		65	American Manufacturing Co.	—	—
Downington Mfg Co.		67	Arrol Mfg Co.		65	VALVES.		—
Glens Falls Machine Works		67	ROTARY BLEACHING BOILERS		65	Crane Co.	43	—
Improved Paper Machinery Co.		67	Beeper Boiler Works Co.		65	Jenkins Bros.	51	—
M. W. Kellogg Co.		67	RUBBER ROLLS.		65	VENTILATING FANS		—
Mills Machine Co.		67	American Wringer Co.		65	B. I. Perkins & Sons, Inc.	11	—
Sandusky Foundry & Machinery Co.		67	SAVEALL		65	VEGETABLE PARCHMENT PAPERS.		—
Sandy Hill Iron & Brass Co.		67	Bird Machine Co.		65	Kalamazoo Vegetable Parchment Co.	8	—
Shurtle Bros Machine Co.		67	SCALES (Paper).		65	WAREHOUSE SERVICE.		—
Smith & Winchester Mfg Co.		67	Fred Baker		65	Brown Wiles Co.	5	—
Valley Iron Works Co.		67	E. J. Gady & Co.		65	WAXED PAPERS.		—
Waterville Iron Works		67	Foreign Paper Mills, Inc.		65	Dragon Paper Mfg. Co.	—	—
PAPER MILL AGENTS.			SCREENS.		65	WOOD FLOUR.		—
Dillon & Barnes		67	Bird Machine Co.		65	Union Wood Flour Co.	75	—
Hill Company, Boston		67	Central Mfg. Co.		65	WOOD PULP IMPORTERS		—
McVey, Dan I.		67	Wm. A. Hardy & Sons Co.		65	American Wood Pulp Corp.	62	—
Milby, I. C.		67	Union Screen Plate Co.		65	I. Andersen & Co.	4 and 27	—
R. L. Stevens Jr.		67	SKYLIGHTS.		65	Ed. E. Brebe & Co.	21	—
PAPER AND PULP MILL BROKERS			E. Van Norden & Co.		65	The Borregaard Co. Inc.	25	—
Gibbs Brower Co.		67	SLASHERS.		65	M. Gottschman & Co.	67	—
PAPER STOCK.			Rether & Pringle Co.		65	Hammond, R. I.	67	—
Atterbury Bros.		67	SLITTERS AND REWINDERS		65	E. J. Keller Co.	67	—
Castle, Gottlieb & Overton		67	C. Birmingham & Sons		65	Engelhof Trading Co.	67	—
Gambinsky Bros.		67	Continuum Machine Works		65	A. J. Pugh & Co. Inc.	21	—
Hicks, Daniel M.		67	Dier Machine Works		65	E. J. Patton & Co. Inc.	49	—
Francis Hughes Co.		67	Samuel M. Langston Co.		65	Standard American Trading Co.	1	—
Mendelson Bros Paper Steel Co.		67			65			—
Penn Paper & Steel Co.		67			65			—
Salomon Bros & Co.		67			65			—

STRATFORD PAPER CO.

160 Cornelison Ave.  
Jersey City, N. J.

High Grade Fourdrinier Tissues in Stock for Immediate Delivery

EMERSON MANUFACTURING CO. LAWRENCE MASS.

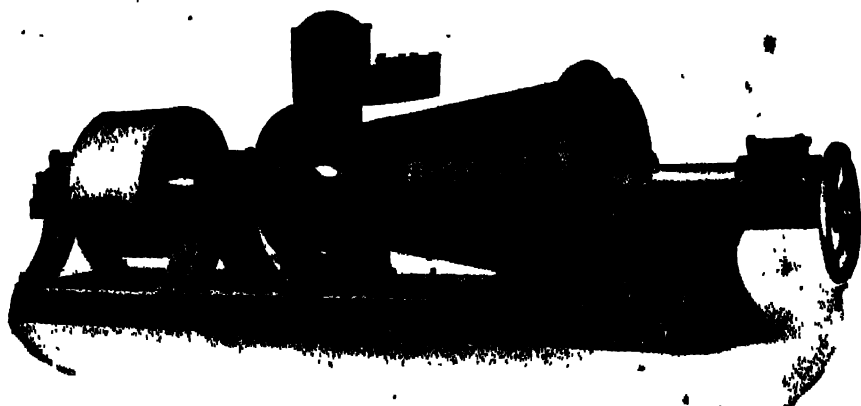
See the Second-Hand Machinery ads and note the  
ABSENCE ofEMERSON  
BEATING ENGINESThey seldom wear out and are never thrown out  
PERFECT CIRCULATION. NO "PADDLING."

The "EMERSON" JORDAN

does its work with half the power required by others of no  
greater capacity.

WRITE FOR DETAILS

# THE DILLON JORDAN



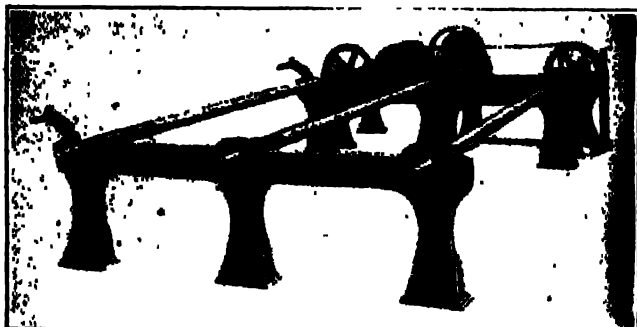
Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Outside stand fitted with gauge to keep the plug central with the shell.

*For full particulars apply to*

**DILLON MACHINE CO., Inc.**  
Builders of Paper Mill Machinery  
Lawrence, Mass.

## DOWNINGTOWN MANUFACTURING CO.

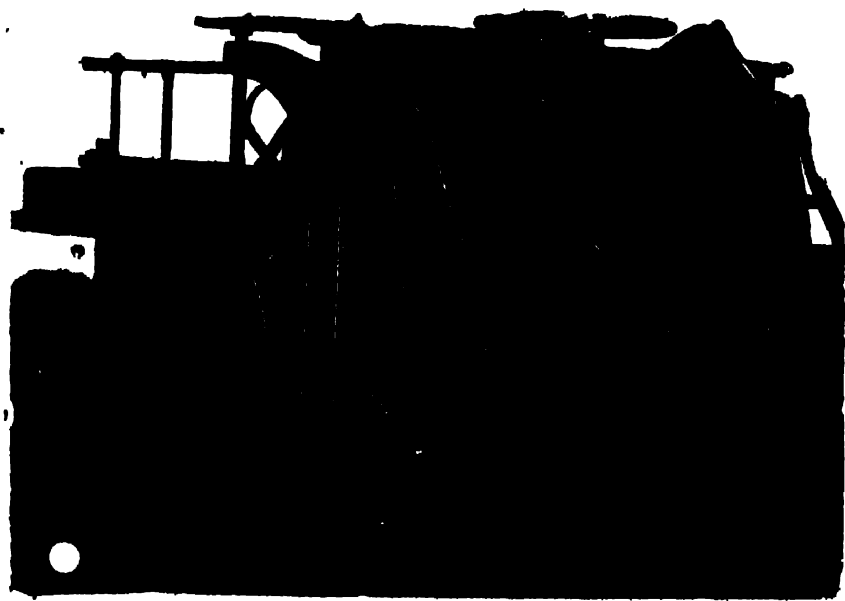
EAST DOWNINGTOWN, PA., U. S. A.



3 Shaft Compensating Winder

*We build all kinds of  
Paper Mill Equipment*

**WRITE US FOR PRICES**



### The Undercut Trimmer

The Paper Mill Cutter, combining the highest degree of accuracy, speed and simplicity for the most exact trimming.

The clamping power of the Undercut is not equalled by any other cutter, and assures absolute accuracy in trimming. The safety in operating an Undercut is a very important fact to be considered, as well as simplicity of design and construction carried out in the best manner and workmanship possible.

The speed of the Undercut is such that more cuts can be utilized in the working of our machine than by the high-speed cutters, which not only consume power, but wear out rapidly.

Our Power-Back Gauge Drive enables the operator to handle material quickly, easily, and more in quantity than can be secured in the use of other machines.

For further and full information, call upon

**The Smith & Winchester Mfg. Co.**

Builders of High Grade Paper Mill Machinery and Paper Mill Machinery  
South Winchester, Conn.

## Stickle Compound Condensing System and Automatic Steam Control for Paper Machines

The folder we sent out to the mills "HOW TO, DRY PAPER" showing our automatic steam control and our compound condensing system for draining the dryers and heating the air with the discharge from the dryers to condition the machine room, should interest you. In many mills we can guarantee a saving of 20% in steam consumed in drying the paper and conditioning the air for the machine room.

**OPEN COIL HEATER & PURIFIER CO.**  
INDIANAPOLIS, IND.

BOSTON

PHILADELPHIA

*Daily Capacity of 600 Air-Dry Tons*

The extent  
of our production of  
High Grade  
**BLEACHED**  
Sulphite Fibre

insures uniform quality, prompt  
shipments and market prices

**BROWN COMPANY**

*founded 1852*

PORTLAND MAINE

*Mills at Berlin, New Hampshire*

NEW YORK CITY  
Woodworth Bldg

CHICAGO  
110 So. Dearborn St.

## SONNEBORN PRODUCTS

### Concrete Floors in Paper Mills Can be made Wearproof and Non-absorbent!

Lapidolith, the liquid chemical, completes the hydration of the cement, and fills the pores with a new crystalline substance.

Lapidolized floors are as hard as granite, and do not wear or dust even when subjected to constant

use or heavy trucking. They withstand the action of chemicals and fumes.

They are watertight and sanitary, an advantage which paper makers will appreciate.

# LAPIDOLITH

TRADE MARK

has been flushed on over 200,000,000 square feet of concrete floors. They will never dust or wear.

#### Sonneborn Products:

**Cement**—the sanitary durable wall coating which reflects all the light. Combines the advantage of paint and enamel. Gloss or flat, white and colors.

**Lignaphol**—the modern wood preservative gives new life to old or new wooden floors.

**Stormtight**—the protective roof coating for all kinds of worn or new roofs. Save labor and material cost of new roofs.

#### Some Sonneborn Users:

American Writing Paper Co., Holyoke, Mass.  
Stevens & Thompson, North Hoosick, N. Y.  
York Haven Paper Company, York Haven, Pa.  
A. F. W. Paper Company, Albany, N. Y.  
Frank L. Miller Paper Company, Downingtown, Pa.  
Kalamazoo Label Company, Kalamazoo, Mich.  
Whiting Paper Company, Holyoke, Mass.  
John Hoburg, Green Bay, Wis.  
The Bemis Bros. Bag Co., Seattle, Wash.  
The Canadian Bag Co., Ltd., Toronto, Can.

*Write for free sample, literature and testimonials to Department 80*

**L. SONNEBORN SONS, Inc.**

264 Pearl St., New York

**SONNEBORN**

# TEXAS GULF SULPHUR

**99½ Per Cent. Pure**

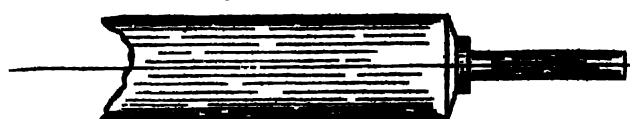
Produced from one  
of the largest known  
deposits in the world.

## Texas Gulf Sulphur Company

*General Offices*

41 East 42nd Street, New York, N. Y.

\*\*\*\*\*  
*Sulphur Deposit and Plant, Matagorda  
County, Texas*



## Rubber Covered Felt Rolls

The next time you need your brass covered felt rolls recovered, we suggest you connect with us before having this work done.

We cover felt rolls with rubber that give far better service than those covered with brass jackets. Our rubber rolls wear perfectly smooth and do not pit, crack or cut the felts same as brass rolls do. Reports from one of the largest paper mills in the United States which has a large number of these rolls in operation indicate that the rolls are very satisfactory, and after being in use over a year and a half show practically no signs of wear.

This is worth your consideration. Send us your inquiries. Quick return shipment is our specialty.

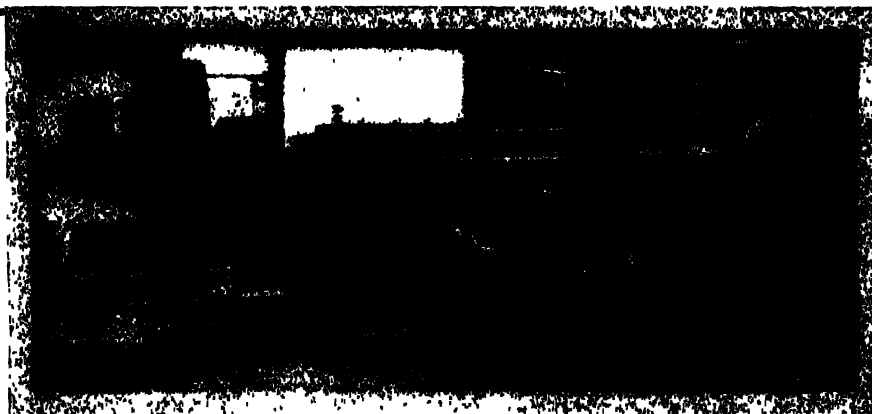
We also furnish the best rubber covers  
for all kinds and sizes of paper mill rolls

## THE AMERICAN WRINGER CO.

Dept. P  
Mechanical Roll Dept.,

WOONSOCKET, R. I.

L  
O  
S  
A  
N  
T



L  
O  
S  
A  
N  
T

## LOSANT PAPER MILL HOSE

is quality plus efficiency which equals economy. Constructed with an exceptional tube and extra heavy wear resisting cover. Losant will fill every requirement of Paper Mill Service.

*Made either plain ends or with tapered rubber nozzle.*

**Cincinnati Rubber Mfg. Co.**

Cincinnati, Ohio

# COLORS

**Calender  
Beater  
Coating**



*For all grades of stock*

PROMPT LABORATORY SERVICE

**SANDOZ CHEMICAL WORKS**

INCORPORATED

238-240 Water St., New York

OUR SOURCE OF SUPPLY IS  
**SANDOZ CHEMICAL WORKS**  
Basle, Switzerland

# PAPER MAKERS' ALUM

(Both Commercial and Free from Iron)

Casein, Satin White, English China Clay,  
Crystal Boro Phosphate

(A solvent for Casein)

**THE KALBFLEISCH  
CORPORATION**

31 UNION SQ. WEST. NEW YORK, N. Y.

===== "Papers made in the Adirondacks" =====

## 1919 PAPERS

### EQUIPMENT—

92" trim Cylinder machine for Heavy Papers .010 to .025    56" trim Fourdrinier machine for Medium Weight Papers  
65" trim Harper machine for Light Weight Papers    40" Plater for "special surfacing"  
40" Roll Embossing machine

We are equipped to make the following specialties:

Drawing  
Railroad Writing  
Bogus Bristol  
Photo Mounts (Solid and Filled)  
Cover Paper  
Kraft  
Anti Tarnish  
Macaroni  
News

Chocolate Layer Board  
Cheviot Paper  
Coating  
Ticket Bristol  
Album Paper  
Black Papers  
Filled Calendar Back  
Solid Calendar Back

Colored Poster  
Colored Sulphite  
Box Cover  
Plated and Embossed Papers  
Match Box Paper  
Special Standard Cover (antique  
finish only)  
Pattern Paper  
Manila

White and Colored Papers for Special Requirements

We also will stock two cover lines—one pattern paper line—one box cover line.

# NUERA PAPER CO., Inc.

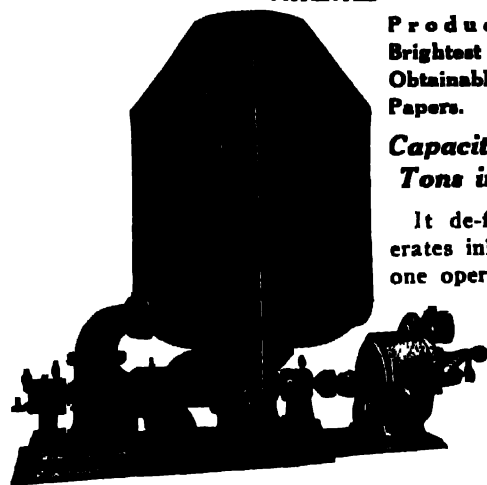
General Offices and Mill: Hadley, New York

W. J. Blackley  
General Sales Manager

# WINESTOCK

## DE-FIBERING AND DE-INKING PROCESS

PATENTED



Height of Machine Over All, 12 Feet

**CASTLE, GOTTHEIL & OVERTON**

SOLE SELLING AGENTS IN THE UNITED STATES  
200 Fifth Ave. Building New York, N. Y.

E. D. Jones & Sons Co., Pittsfield, Mass.,  
Builders in the United States  
Watrous Engine Works Co., Ltd., Builders and Selling  
Agents for Canada, Brantford, Canada.

Produces Strongest,  
Brightest and Best Pulp  
Obtainable from Waste  
Papers.

**Capacity—12 to 15  
Tons in 24 Hours**

It de-fibers and lib-  
erates ink and color in  
one operation. It sep-  
arates ink  
and color  
from fibers,  
instead of  
rubbing,  
grinding or  
kneading  
them in

Buy "signed"  
valves—with the  
Jenkins Diamond  
Mark and  
signature on the  
body.

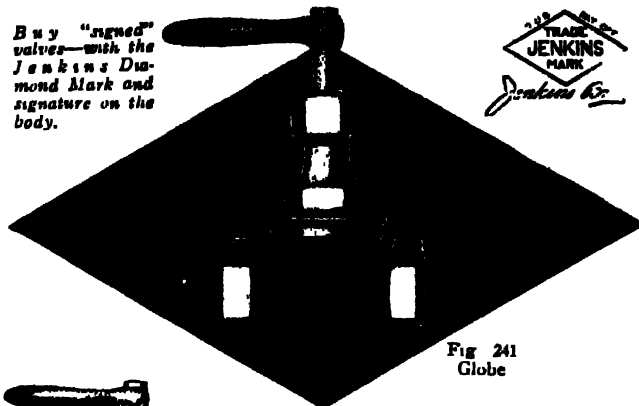


Fig. 241  
Globe



Fig. 243  
Angle

### Quick Opening Valves

Globe and angle types, standard pattern  
suitable for working pressures of 150  
pounds steam, or 250 pounds water.  
Valves open in about quarter the usual  
number of turns. Ordinarily fitted with  
lever handles but can be furnished with  
hand wheel if desired. Fitted with Jenkins  
Renewable Disc.

*It supply houses everywhere*

**JENKINS BROS.**

New York Boston Philadelphia Chicago  
Montreal Havana London  
FACTORIES Bridgeport, Conn.,  
Elizabeth, N. J. Montreal, Canada

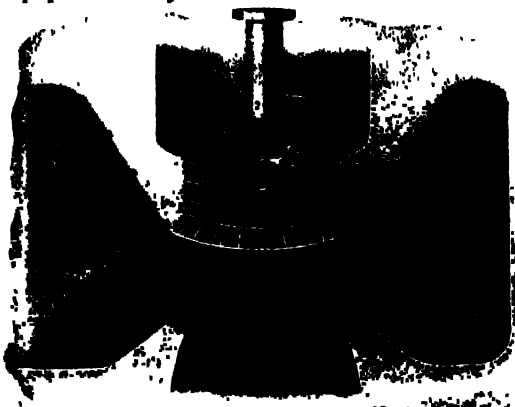
# Jenkins Valves

SINCE 1864



## SMITH HYDRAULIC TURBINES

Write Dept. "X" for Bulletin illustrating some of the  
latest and most efficient water power installations in  
the paper industry.



**S. MORGAN SMITH CO.** York, Pa.  
176 Federal St. BOSTON 78 W. Monroe St. CHICAGO 405 Power Bldg. MONTREAL

# APPLETON FELTS

Quality Paper  
Quantity Production  
is another way of saying  
**APPLETON**  
Felts and Jackets

**APPLETON WOOLEN  
MILLS**  
APPLETON, WIS.

## No Break No Leak

Every Caldwell Tank is machine-planed and jointed—properly. The Caldwell Cypress Tank swells just enough to make it virtually a solid piece of wood, thoroughly leak-proof. True, tight and properly braced—there is no possibility for bulges or breaks.

Caldwell Tanks are built by men who have been making superior tanks for over 30 years.

Send for Catalogue.

W. E. CALDWELL CO.,  
INCORPORATED  
2040 BROOK ST., LOUISVILLE, KY

*Caldwell*  
TANKS  
AND  
TOWERS

**Fly Bars**

**Bed Plates**

**Jordan Fillings**

**Knives**

For all makes  
of Machines.

For all classes  
of work.

We can offer a desirable and dependable source of supply.

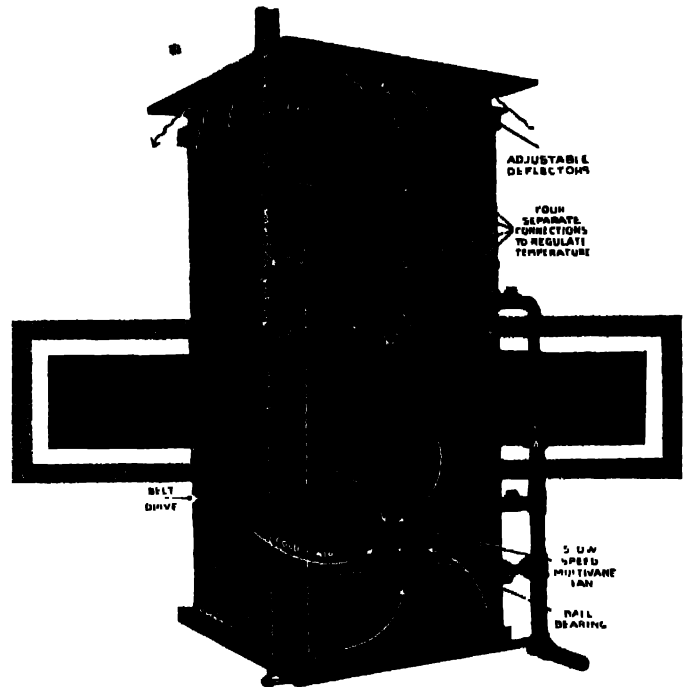
Let us quote on your requirements.

**JOHN W. BOLTON & SONS, Inc.**

Lawrence, Mass.

*High Grade Fly Bars, Bed Plates, Jordan Fillings and Knives.*

## GORDON STEAM UNIT HEATER



### LOWEST COST DRYING HEATING AND VENTILATING

THE marked flexibility of the Gordon Steam Unit Heater accounts for its extremely low operating cost—this unit is quickly adapted to fit requirements.

Each of the 4 cast iron coil banks has its own supply valve so that as many coils as are needed may be used. The Multivane Fan handles more air at lower speeds so that less power is required to move a given volume. The heat may be directed or concentrated where needed, as there are 4 separate outlets—all controllable.

Get the facts and figures on your requirements. Plant officials and their architects and engineers may without obligation "Consult Gordon." Use the convenient coupon. We are headquarters for information on the items listed below.

**ROBERT GORDON, Inc.**

"Climate Makers"  
Specialists in Heating and Ventilating  
Established 1890

638 W. MONROE STREET

CHICAGO, ILL.

Robert Gordon, Inc.  
638 W. Monroe St., Chicago

Gentlemen: We are interested in the item or items checked below:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Mechanical Hot Blast Heater.   | <input type="checkbox"/> Mechanically Circulated Water Heating. | <input type="checkbox"/> Ventilation-Fan System of Heating. |
| <input type="checkbox"/> Steam Unit Heaters.  | <input type="checkbox"/> Direct Steam Heating.                  | <input type="checkbox"/> Process Piping.                    |
| <input type="checkbox"/> Preliminary survey, and recommendation of best type of heating for our plant, based on installation and operating costs. | <input type="checkbox"/> Drying.                                | <input type="checkbox"/> Air Conditioning.                  |

Name \_\_\_\_\_

Address \_\_\_\_\_

For \_\_\_\_\_

## Dietz Toilet Paper Machinery

AND LATEST IMPROVED PATENTED

### Automatic Tube Machines

For Making Tubes for Toilet  
Paper Rolls, Paper Towel Rolls



Patented Feb. 22, 1916, May 18, 1920

Toilet Paper Machines for making Toilet Rolls with or without perforations and machines for making Sanitary Crêpe Paper Towels, Punch Presses for Sheet Toilet Paper, Drop Roll Slitters, Slitting and Rewinding Machines, Side and Center Seam Merchandise Envelope Machines, Photo Mount Beveling Machines, Candy Bag Machines, Punch Presses for Playing Cards, Rotary Card Cutting and Collating Machines, Etc.

### DIETZ MACHINE WORKS

126-128 Fountain Street

PHILADELPHIA, PA.

Corner Waterloo St., Below Diamond St., Bet. Front and 2d Sts.

Capable of producing 3,600

### Toilet Tubes

per hour direct from roll.

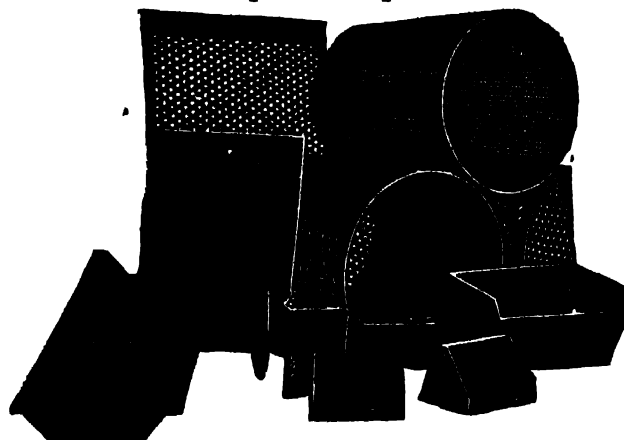
### Towel Tubes

are made at rate of 1,800 per hour. Substantially built and fully guaranteed.

## PERFORATED METAL SCREENS

IN STEEL AND ALLOYED METALS

For Pulp and Paper Mills



Elevator Buckets, Conveyor Flights  
and Troughs, General Sheet and  
Light Structural Work

### HENDRICK MANUFACTURING CO.

75 Dundaff Street, Carbondale, Pa.

New York Office, 30 Church St.

Pittsburgh Office, 915-916 Union Bank Building

# The Sandy Hill Iron & Brass Works

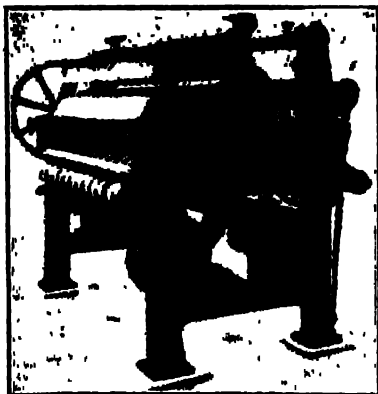
Hudson Falls, N. Y.

Manufacturers of

# Paper and Pulp Mill Machinery

## THE CLARK-AIKEN CO.

Successors to  
H. C. Clark & Son Machine Co.  
**PAPER MILL MACHINERY**  
LEE, MASS.



Revolving Paper Cutters—Rag Cutters—Cylinder Paper  
Machines—Washing and Beating Engines—Chilled Iron  
and Paper Calendars—Fan and Stuff Pumps—Engine  
Roll Bars and Bed Plates—  
Cylinder Molds—Marshall Drives—Slitters and Rewinders  
—Reels—Dryers with Improved Packing Boxes—  
Wet Machines—Gun Metal and Rubber Rolls—Rolls  
Reground.

## The Compensating Lever Clamp

OF THE MULLEN PAPER TESTER



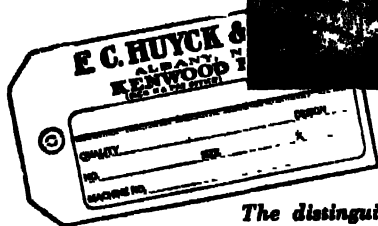
is very quick-acting, and insures absolutely uniform  
clamping pressure for all paper of any given thickness.

*Write for further information about  
the Standard Tester to Dept P 11*

**B. F. PERKINS & SON, Inc., Holyoke, Mass., U. S. A**

## Kenwood Felts, Kenwood Seamless Felts and Kenwood Tan Jackets

The economy of Kenwood  
Felts is reflected in the bal-  
ance sheets of both produc-  
tion and costs.



*The distinguishing mark  
of Kenwood Felts*

**F. C. HUYCK & SONS**  
**KENWOOD MILLS,**  
**ALBANY, N. Y.**

JOHN ASPEGREN,  
President

Telephone { 6311  
6312 Murray Hill  
6313

NILS R. JOHANESON,  
Vice-Pres. & Gen. Mgr.

# SCANDINAVIAN AMERICAN TRADING COMPANY

50 EAST 42nd STREET NEW YORK CITY

## W O O D P U L P

Among other brands we sell the following Pulp as Agents:

Iggesund Easybleaching and Strong Unbleached (Kraft) Sulphates

Annual Production 12,000 dry tons.

Tonnages of the above available for prompt and future delivery. Wire for prices.

**Our Service  
and Our  
Quality**

are advertised by our patrons, who know they can rely on LaBoiteaux for the BEST at all times. They will tell you that headquarters for

## Box Boards

*and Paper Board Specialties*

is wherever LaBoiteaux maintains a "service station"—in Cincinnati, Chicago, Cleveland, New York.

**The C. L. LaBoiteaux Co.**

Cincinnati  
Cleveland

Chicago  
New York

## COLLINS MANUFACTURING COMPANY

SAMUEL R. WHITING, Pres. and Treas.

Manufacturers of

LOFT DRIED PAPERS

LEDGERS

BONDS

WRITING PAPERS

Mill: North Wilbraham, Mass.

Main Office:

208 Race Street

Holyoke, Mass.

**E. J. KELLER COMPANY**

INCORPORATED

200 FIFTH AVENUE

NEW YORK

FOREIGN AND DOMESTIC  
PAPER MAKERS' SUPPLIES  
CHEMICAL AND MECHANICAL PULPS  
COTTON, JUTE AND FLAX WASTES  
EAST INDIA MERCHANDISE

## PAPER and BOARDS ALL GRADES

Direct Mill Service to the Paper Merchant

*Barton Hill Company*

INCORPORATED

501 Fifth Avenue at 42nd Street

NEW YORK CITY

# BOOK PULP

"SOMETHING NEW IN PAPER-MAKING"

Our clean, bleached white Book Pulp possesses all the paper-making elements and advantages of bleached sulphite and soda pulp, at a cost slightly higher than that of ground wood pulp. It enables the practical paper-maker to cut costs and create new grades.

**New York and Maryland Pulp and Paper Co.**

522 Fifth Avenue

New York

**MILL—METUCHEN, N. J.**

We offer a full line of

# COLORS

and furnish precise directions on application for

**Beater Dyeing, Staining and Coating**

Half a century's experience enables us to furnish goods answering requirements  
and to give reliable service

**THE HELLER & MERZ CO.**

BOSTON

CHICAGO

NEW YORK

PHILADELPHIA

SPRINGFIELD, MASS.



**SOLE AGENTS** in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH CELLULOSE ASSOCIATION, HELSINGFORS, FINLAND**  
 comprising all and every sulphite, Sulphate and Kraft pulp mill in Finland. Manufacturers of superior grades of Bleached and Unbleached Sulphites, Easy Bleaching Sulphates and Kraft Pulps.

ALSO



**SOLE AGENTS** in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH WOOD PULP UNION, HELSINGFORS, FINLAND**

a combination of the foremost Ground Wood Pulp and Board mills in Finland, makers of various kinds of boards and dry and wet Brown and White Mechanical Wood Pulp.

*Get the most for your money by getting next to our qualities and prices!*

**WOOD**  **PULP**

**LAGERLOEF TRADING COMPANY, Inc.**

**NEW YORK OFFICE:**

18 East 41st Street  
 Tel. Murray Hill 624-7.

**CHICAGO OFFICE:**

1932 Conway Building  
 Tel. Main 1770-71.

**INQUIRIES SOLICITED**

MEMBER OF THE A. B. C.

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

**FIFTIETH YEAR**

PUBLISHED EVERY THURSDAY BY THE  
**LOCKWOOD TRADE JOURNAL COMPANY, INC.**

LESLIE R. PALMER, President

J. W. VAN GORDON, Vice-President

Telephone { 2380  
2381 } Vanderbilt

10 EAST 39TH ST., N. Y., U. S. A.

Cable Address Catchow, New York

Western Publication Office—431 S Dearborn Street, Chicago  
New England Office—Room 46, 127 Federal Street, Boston

Washington Office—L. M. Lamm, 63 Home Life Bldg.  
Western New England News Office—Michael Connor, Holyoke  
London Office—Stonhill & Gillis, 58 Shoe Lane

*THE PAPER TRADE JOURNAL is the pioneer publication in its field, and has for many years been the recognized Organ of the Paper and Pulp Industry. Its circulation is greater than the combined circulations of all other publications in the field. Entered at New York Post Office as second-class mail matter.*

## Terms of Subscription

UNITED STATES AND MEXICO..... Per year, \$4; 6 months, \$2; 3 months, \$1  
CANADA AND FOREIGN COUNTRIES IN POSTAL UNION..... Per year, \$6  
SINGLE COPIES.....10 cents

## Other Publications of Lockwood Trade Journal Company, Inc.

AMERICAN STATIONER AND OFFICE OUTFITTER (Weekly) .....Per year, \$2  
LOCKWOOD'S DIRECTORY OF THE PAPER  
STATIONERY AND ALLIED TRADES (Annual) } .....Per copy, 5¢

Vol. LXXIII. No. 16

NEW YORK AND CHICAGO

Thursday, October 20, 1921

## Table of Contents

### News of the Trade:

	PAGE
Canadian Paper Merchants Hold Meetings in Montreal	16
Whalen Co.'s Satisfactory Statement	16
Howard Smith's New Mill	17
Affairs of the Riordon Co.	17
Program for Chicago Paper Week	17
Paper Merchants of Boston Made Plans for R R Strike	18
Col. Edgar Smalley Returns to England	18
Plans for Salesmen Meeting at Chicago	18
Paper Workers Sought in Kalamazoo District	20
Kalamazoo Vegetable Parchment Improves	20
Paper Demand in Toronto Constantly Improving	22
Mattagami Plant Producing Pulp	22
Chicago Demand for Paper Expanding	24
Charles G. Palmer Co Opens Office at Chicago	24
Improvement Continues in Philadelphia Trade	26
Philadelphia Fine Paper Division Meets	26
Philadelphia Paper Stock Dealers Meet	26
Tester of Board Patented	28
Bids and Awards for Paper	30
Keith Paper Co Celebrates 50th Anniversary	30
Wausau Paper Co. Gets Logging Contract	30
New York Jottings	36
How Russia Affects Paper Market	39
A. G. Howland Finds Conditions Better	39
Western Paper Stock Co. Changes	44
Canadian Export Paper Co. Changes	44
Paper Trade Associations Not Under Suspicion	54
Few New Paper Machines Ordered for 1922	54
Chapman Paper Co. Has Salesmen's Convention	54
Manila Men Want Higher Tariff Rates	54
Peshtigo Pulp Co. Sues D. R. Meade	54
Action Wanted on Pulpwood Commission	54

	PAGE
Safety Work at Kimberly-Clark Mills	54
F E Bragg Heads Orono Paper Co.	58
Strike Breakers Go to Work at Rumford	58
Imports of Paper and Paper Stock	60
Discuss Industrial Relations at Menasha	60
May Build Paper Mill at White Rapids	60

### Editorial:

Strike Will Not Interfere With Conference	38
Paper Makers Not Panic Stricken	38
Paper Mill Employment	39

### Special Articles:

The Cooking of Rags	32
The Analysis of Cardboard: Elasticity	40

### Bibliography:

Recent Literature on Soda and Sulphate Pulp	46
---	----

### Obituary:

John G. Luke	30
--------------	----

### Market Review:

New York Market Review	58
Market Quotations	59
Miscellaneous Markets	52

Want and For Sale Advertisements, Pages 60 and 61

## CANADIAN PAPER MERCHANTS HOLD MEETING IN MONTREAL

**Fourth Annual Convention of the Canadian Paper Trade Association Is Characterized by a Spirit of Optimism in Regard to the Outlook for Flat Paper—C. J. Kay, of Vancouver, Is Elected President of the Association for the Ensuing Year—Report of President T. W. McGarry Shows That the Whalen Pulp & Paper Co. Has Enjoyed a Very Successful Year—Settling Affairs of the Riordon Co**

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., October 17, 1921—The fourth annual convention of the Canadian Paper Trade Association has been held in Montreal during the past week, and was characterized by a spirit of optimism in regard to the outlook for the flat paper trade. It was a matter for general congratulation that the paper trade had come through the period of depression without demoralization, and the opinion was expressed that rock-bottom prices had been reached, with a prospect that in the future there would be a larger demand with better prices. There was an attendance of about forty delegates at the meetings, including representatives of leading paper firms all over Canada.

When the convention met in the morning an address of welcome was given by F. V. Dawson, of Montreal. This was followed by the presidential address by the president, C. W. Graham. In his report Mr. Graham said that a year ago the paper trade was in such a position that there were more orders than could be filled, with a general scramble to secure supplies of paper. During the past year the market had gradually turned to the opposite extreme. The paper men now had to face a reduced demand for stocks and lower prices. This condition, said Mr. Graham, had continued for some time. It had been met in the paper trade in a manner that tended it over without demoralization and to much better advantage than in the case of other commodities.

Now, said Mr. Graham, it was felt that the price of paper had struck rock bottom, and he thought it was more likely that there would be an advance in prices than a reduction. This situation was due largely to the existence of the Paper Trade Association, which during the past three or four years had brought about a much better understanding between the wholesalers.

The treasurer, E. S. Munroe, presented a brief report, in which he showed that the finances of the association were in excellent shape. The secretary, N. I. Martin, in his report, dealt chiefly with the domestic affairs of the association during the year. His reports showed that the membership comprised practically every jobber of paper in the Dominion, and that the members had supported well the work of the association during the year.

The delegates at the convention were guests of the Canadian Pulp and Paper Association at luncheon at the Windsor Hotel, when the chair was taken by C. W. Graham, and the mill organization was represented by A. L. Dawe and a number of members of the Pulp and Paper Association.

In the afternoon the sessions resumed with the reading of a number of technical papers dealing with problems of interest to the paper trade. These included a paper by A. Clarke Hunt, of Winnipeg, on "Costing Every Sale its Value and Importance," while a long discussion took place with a deputation from the Typothetae Association, which embraced a number of the problems facing the commercial printers today.

The officers for the coming year were elected as follows: President, C. J. Kay, Vancouver; first vice-president, George Wilson, Winnipeg; second vice-president, J. C. Larkin, Montreal; treasurer, E. F. Munroe, Toronto; and secretary, A. L. Martin.

In the concluding afternoon of the two-day conference the members were entertained on a local golf course, and in the evening the guests of the Montreal members of the association at a dinner at the Mount Royal Club.

### Whalen Co.'s Satisfactory Statement

It is announced from Vancouver, B. C., that from figures submitted by President T. W. McGarry at the annual meeting of the Whalen Pulp and Paper Company, the company is shown to have had a very successful year. The present board of directors was re-elected. W. D. Ross, of Toronto, represented the Eastern directors. Mr. McGarry reported the physical condition of the company to be in good shape. Mr. McGarry also reported that during the year the sum of \$858,735 had been expended on capital improvements. He stated that no further capital expenditures would be made unless essential to the prosperity of the industry. The company's production of pulp last year was 51,731 tons against 47,962 tons the preceding year.

### Seed from Fir Cones

Seed from fir cones will be extracted in a large plant now being erected at New Westminster, B. C., for that purpose. The seeds will be used in a great reforestation scheme in the British Isles. The Dominion Department of Public Works has erected a three-story building to house the plant and the machinery is being installed. Fir and hemlock cones will be gathered in all parts of the province and threshed out at the plant here. The industry will be operated by the forest service.

### An Advance in St. Maurice Stocks

An advance of five points made this past week by the St. Maurice Paper's stocks is probably a reflection of the report that Union Bag and Paper Corporation is now running at 100 per cent of capacity in all of its plants, including the St. Maurice Paper Company, Limited, of whose stock Union owns about two thirds. This operation is entirely on current orders. August sales were equal to those of a normal month and September was slightly above normal. October sales, from present indications, will set a record for 1921. The company is operating at a profit. Stocks of wrapping and bags have been thoroughly liquidated. Only the news print end the St. Maurice subsidiary is running 100 per cent, although the presence of a relatively small amount of foreign paper in the domestic market has softened spot prices. In regard to finances, Union Bag and Paper Corporation is comfortable in many respects. It has somewhat increased the treasury holdings of bonds, which stood at \$1,022,000 on December 31 last. This is sufficient to cover sinking fund requirements into 1923.

### Lumber Exports Holding Up Well

The October Monthly Letter of the Canadian Bank of Commerce, in referring to the market for forest products, says:

"Half the lumber produced in British Columbia is exported, and this export trade is keeping up remarkably well, although recently a substantial increase has taken place in freight rates on less than carload lots. Japan is the principal market, but there has been an increased demand from China and Australia, and some inquiries have come from the United Kingdom. Australia and New Zealand are drawing about 30 per cent of their requirements from British Columbia, which is a far larger proportion than for many years past.

"News print manufacturers in British Columbia are at present encountering severe competition from Norway and Sweden, where it is understood that manufacturers are being forced to liquidate stocks. This condition is expected to continue for some months, after which conditions should again become normal.

"In the Maritime Provinces the market for pulpwood is very dull, and sales are difficult to make. The mills are overstocked and are also now subject to keen competition from Europe at prices which are difficult to meet. Inquiries for lumber are, however,

becoming more frequent. There is little disposition to extend operations in the woods, although men can now be engaged in the Quebec woods at \$25 a month and board."

#### Howard Smith's New Mill

The Howard Smith Paper Mills, Limited, have issued the following announcement of the opening of their new mill:

"We announce the opening of our own pulp mill at Cornwall, Ont. This new addition to our manufacturing system is of great value for, by means of it, we are able to control the development of our production from standing timber to the finished sheet of paper.

"In making this statement we would add that, as part of our pulp program, we have purchased nearly 5,000 square miles of timber limits, recognized as among the very finest in Canada for our purpose.

"The mill itself is of the most modern construction and contains the last word in equipment necessary for the production of a standardized quality of high grade pulp. In addition to the mill, our own electrolytic bleach plant will soon be producing our own bleach. A further addition is made in a filtration plant, which will ensure for the production of Beaver S papers a purity of water supply unsurpassed in quality. The very source of our water, the St. Lawrence River, is one of the purest courses of water in the world for this grade of stock."

#### Affairs of the Riordon Co.

The various interests which are concerned in the effort to pull Riordon out of the unfortunate position into which the company has fallen have been carrying on negotiations for some time past for the purpose of arriving at some basis whereby operations may be resumed under a trusteeship. Last week these negotiations assumed a more definite form and in many quarters the hope was entertained of a successful result.

It is stated that in connection with the financial end it is known that an arrangement has been reached by which further time has been obtained for dealing with the mortgage on the Edwards portion of the Gatineau limits, from which so much was feared about a month ago. The subsequent death of Senator Edwards has not altered the situation alluded to. It would seem, therefore, that the immediate pressure has been somewhat relieved, thus placing the Boston interests in a better position to deal with the situation. It is understood that some of these interests are in Montreal and that some decision relative to the proposed operation of trustees may be reached at any time, possibly during the present week.

#### News Print Paper Production in September

The 44 companies in the United States and Canada reporting to the News Print Service Bureau produced 143,472 tons and shipped 142,393 tons of news print paper during September. Production exceeded shipments by 1,079 tons. Production figures include 1,099 tons of hanging paper, of which 268 tons was produced in Canada.

The average daily production of news print paper by the mills reporting for September amounted to 73.7 per cent of the average daily output during the three months of greatest production in 1920, allowing for new machines recently started.

Production during September was 6,242 tons or 4 per cent, and shipments 5,238 tons or 4 per cent less than in August, there being two less working days in September.

Production by the reporting United States mills during the first nine months of 1921 was 229,882 tons, or 24.4 per cent less than in the first nine months of 1920, and production by Canadian mills decreased 82,491 tons, or 12.4 per cent during the same period, making a total decrease of 312,373 tons, or 19.4 per cent by the 44 reporting companies.

Total stocks at reporting mills on September 30 amounted to 40,630 tons, or 957 tons more than on August 31, and were equivalent to about 5 days maximum production.

#### Program for Chicago Paper Week

The program of the third fall business conference of the American Paper and Pulp Association, at the Drake Hotel, Chicago is as follows:

##### GENERAL SUBJECT

The paper industry as seen by manufacturer, merchant and consumer.

THURSDAY, NOVEMBER 3, 1921

10 30 A. M. General Session of American Paper and Pulp Association

Addresses by Representatives of Manufacturers of Paper Merchants and Consumers

1 00 P. M. Joint Luncheon with National Paper Trade Association

Addresses by two leading business men on the Paper Industry and business in general

The symposium at the 1921 convention in April of the American Paper and Pulp Association at which manufacturers representing various groups of the paper industry discussed the conditions in their respective branches, met with such a favorable response from the industry that it was decided to hold a similar symposium at the fall conference. The fall symposium, however, has been extended to include the entire industry. The program, therefore, will include three prominent manufacturers, two of the best known merchants and two of the largest consumers of paper who will discuss the condition of the industry from their respective viewpoints.

The program of the affiliated associations is as follows:

TUESDAY, NOVEMBER 1

10 00 A. M. Book Paper Manufacturers' Association, Blackstone Hotel

10 00 A. M. Card Board Manufacturers' Association, Drake Hotel

10 00 A. M. Pulp Manufacturers' Association, Drake Hotel.

11 30 A. M. Salesmen's Association of the Paper Industry, Chicago District, followed by luncheon and afternoon program, Drake Hotel

2 30 P. M. Cover Paper Manufacturers' Association, Blackstone Hotel

7 00 P. M. High Grade Paper Conference with Merchants, Blackstone Hotel

WEDNESDAY, NOVEMBER 2

10 00 A. M. Gummed Paper Manufacturers' Association, Drake Hotel

10 00 A. M. Board Section of the American Paper and Pulp Association, Drake Hotel.

10 00 A. M. Waxed Paper Manufacturers' Association, Drake Hotel

10:00 A. M. Writing Paper Manufacturers' Association, Blackstone Hotel

10 30 A. M. Wrapping Paper Manufacturers' Association, followed by luncheon and afternoon program, Drake Hotel

2 00 P. M. Woodlands Section, Drake Hotel.

2 30 P. M. Sulphite Bond Division, Blackstone Hotel.

8 00 P. M. Vegetable Parchment Manufacturers' Association, Drake Hotel

THURSDAY, NOVEMBER 3

7:30 A. M. Breakfast of the Glassine & Greaseproof Manufacturers' Association, Drake Hotel

10 30 A. M. Third fall business conference of the American Paper and Pulp Association

FRIDAY, NOVEMBER 4

10 00 A. M. Tissue Paper Manufacturers' Association, Blackstone Hotel

2:00 P. M. Toilet Paper Converters' Association, Blackstone Hotel

## PAPER MERCHANTS OF BOSTON MADE PLANS FOR R.R. STRIKE

**Arrangements Being Made Among the Big Houses Whereby A "Ship-by-Truck" Campaign Will Be Well Under Way by the Time Set for the Proposed Strike—It Is Believed That in the Event of a Strike Practically All of the Trucks Connected With the Larger Houses Will Be Pooled and Will Be Released Through a Clearing House to Be Sent Where Immediate Deliveries Are Demanded.**

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., October 17, 1921—Boston paper merchants this week started a "preparedness" campaign in view of the uncertain situation pertaining to railroad transportation. Plans are being formulated among the big houses whereby a "ship-by-truck" campaign will be well under way by November 1, the time set for the proposed strike.

It is a preparedness move, nothing else. Business is good—deliveries must be made. Consequently several "leaders" held informal meetings and outlined an anti-strike campaign. It is believed that practically all of the trucks connected with the larger houses will be pooled. In event of a strike they will be released through a clearing house—to be sent where immediate deliveries are demanded.

The mills have already agreed to co-operate with the jobbers and so on down the line.

### Prices of Old Paper Decline

There was a noticeable slump in old paper prices in this section this week, with book stock dropping \$5 a ton, and news declining from \$14.50 to \$13.50 and in some instances to \$13. Mixed papers took a drop anywhere from \$1 to \$2 a ton.

Good tonnage in old rags was obtained in many houses and an upward trend was observed in No. 1 scrap burlap and mill gunny. Manila rope has been in great demand for several days.

### Col. Edgar Smalley Returns to England

Col. Edgar Smalley, head of the Edwin Butterworth & Co., Inc., Ltd., of Manchester, England, sailed from this country this week after a tour of this section lasting many weeks. He expressed himself as very much pleased with conditions and is credited, by many of the big men in the business, with having started some good business spurts in the sections visited by him.

### General Trade News

Several members of the "Be Nice" club, an organization consisting of girls connected with the clerical force of Carter, Rice & Co., this week tendered a miscellaneous shower to Miss Florence Robart, popular bookkeeper, who is to be married next week. A feature of the party was a mock marriage which caused considerable amusement. Miss Robart received many fine gifts.

Ex-Gov. Roland A. Spaulding, of New Hampshire, stopped in Boston for a few hours this week while en route to Buffalo. Gov. Spaulding, one of the largest manufacturers in the East, expressed much optimism over the future and incidentally did some good business while in town.

Charles H. Wood, president of E. Butterworth & Co., Inc., returned this week from a three-day trip in New York. He reports good business.

Lewis Robertson, manager of the Bellows Falls, Vt., plant of the Claremont Paper Company was another visitor in town this week.

Frank J. Colcord has been added to the city sales force of John Carter & Co., Inc.

Much interest is manifested in the announcement that John Carter & Co., Inc., has been selected as an "Eagle A Service Home," and is now handling the entire line of Eagle A standardized mill-brand papers.

The trade welcomed John A. Andrew, president of the paper firm of Stone & Andrew this week upon his return to his Boston home from Scituate, where he has been spending the summer. This company is planning an interesting exhibition at the Direct-By-Mail Convention to be held in Springfield. The house will show a fine line of papers from all the mills it represents.

### Plans for Salesmen Meeting at Chicago

Following the decision of the Salesmen's Association of the Paper Industry to hold the semi-annual meeting of that association during the Fall Business Conference of the paper industry at Chicago, the Chicago members of the association have been rushing plans to make this a notable meeting. The date has been definitely set for November 1 at the Drake Hotel, and following the men's meeting there will be entertainment, which will include the ladies attending the convention.

President H. H. Reynolds of the Salesmen's Association attended the preliminary meeting with twelve salesmen of the Chicago district, including J. L. Fearing, vice-president for the Chicago district, and George K. Gibson, former president.

All meetings of the Salesmen's Association will be held in the grill room, and the meeting will be called to order promptly at 11 o'clock, instead of 11:30 as originally suggested. This will be the business meeting of the association, and at 12 o'clock Dr. Graig Stewart, the chaplain of the association, will make his address. At 12:30 there will be a luncheon, followed by a formal program at 2 o'clock. R. S. Kellogg, secretary of the News Print Service Bureau, will discuss important conditions, and other speakers will be selected to discuss the financial situation and the advertising and general business conditions. At 3:30 the meeting will adjourn for the social feature, which will be a reception to members and their ladies. There will be music with dancing until 5:30 or 6 o'clock.

This is the latest development of the plans for the Chicago business conference, which now promises to be of the greatest importance to the industry. Many of the speakers have been selected, and plans are going forward rapidly for the closing of details for the convention. The holding of the symposium in the spring, as a cross section of the industry from the viewpoint of the various manufacturers, was met with such favor that it was decided to extend the idea to the entire industry for the fall conference, with the manufacturers, merchants and consumers all represented.

The merchants' side of the program has been completed by the acceptance of the invitation to speak by O. A. Miller, of Columbus, Ohio, President Edward F. Herrlinger, of the National Paper Trade Association, having been announced earlier as the other of the two merchants on the program.

There will be at least two manufacturers to lead the program, those who have accepted being George W. Sisson, Jr., former president of the association, and J. H. Stannard, of the Grand Lake Company, representing the converters among the manufacturers.

One important consumer has already accepted an invitation to appear, Thomas E. Donnelley, of Chicago, a well-known publisher, and former president of the United Typothetae of America.

Plans for the luncheon are also being rapidly completed, and the announcement of the speakers is only waiting for the word of the acceptance of invitations already sent out.

Those who expect to attend should make their hotel reservations as early as possible.

**HIGH COLOR!**  
**CLEAN!**  
**STRONG!**

**MT. TOM**  
**BLEACHED SULPHITE**

*May we quote?*

**A. J. PAGEL & CO., Inc.**

**347 Madison Avenue**

**New York**

## SEEKS PAPER WORKERS IN THE KALAMAZOO DISTRICT

**Representatives of the International Paper Co. Said to Be Making an Effort to Round Up Papermakers to Work in the Eastern and Canadian Mills of the Company Where Strikes Are in Progress—Michigan Paper Mills Traffic Association Asks for a Lowering of Freight Rates on Coal—Frank W. Fletcher, of Fletcher Paper Co., Gives Land for Park—Other News of the Trade.**

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., October 17, 1921.—Representatives of the International Paper Company are in Kalamazoo making an effort to round up paper makers to work in the New York, Vermont, Maine and Canadian mills of that corporation. Messrs. Kelly and Johnson from the employment offices of the big news print company, are conducting the campaign.

They are frank in stating that a strike still exists against the I. P., though no trouble is being experienced by men employed. Despite the fact that the scale for news print workers is slightly higher than for the book mills in the Kalamazoo valley, it is reported from labor headquarters that very few are answering the call. Kalamazoo is generally recognized as one of the highest class residence towns among paper mill centers and offers advantages not available at most points.

One prominent machine tender remarked: "We get some things in Kalamazoo not included in our pay envelope. Living conditions here are ideal compared with most paper mill centers. There are churches of every denomination, schools, colleges and opportunities for recreation without end. There are also no company's houses to live in. Many of the paper mill workers own their own homes."

"While it is true that everything is not just as one might wish for in Kalamazoo, it is my opinion that very few of the local workers will be induced to seek employment elsewhere, especially with a company that is confronted by strike conditions."

### Wants Lower Freight Rates on Coal

The hearing of the Michigan Paper Mills Traffic Association's coal case was held in Grand Rapids last week. The association is asking for a lowering of the freight rate on Crescent coal from \$343 to \$300 a ton. If granted this would result in a saving of \$250,000 annually to the mills in the Kalamazoo valley, while, if the benefits to industries generally are considered, the savings would be in excess of \$600,000 a year.

L. A. Larish, commerce counsel of the association, handled the case for the paper mills. He was assisted by C. R. Hillver, of Chicago, and George J. Bolender, traffic manager of the Chamber of Commerce, Kalamazoo.

### Kalamazoo Vegetable Parchment Improvements

During the past summer eight very attractive houses have been erected at Parchment, home of the Kalamazoo Vegetable Parchment Company. This gives in all about 40 residences under the shadow of the great plant. They are homes in the best sense of the word, containing all modern conveniences. Work is also progressing rapidly on the new Parchment community building.

### General News of the Trade

Frank W. Fletcher, associated with the Fletcher Paper Company, Alpena, has added to the extent of Frank A. Fletcher park an eighty acre tract. It is delightfully wooded and will be thrown open for automobile use next summer.

The Michigan Carton Company, Battle Creek, is reported to have received an order for 22,000,000 cartons from the California Raisin Company, Fresno, Cal. This concern also manufactures the cartons

for the Kellogg Toasted Corn Flakes Company, Battle Creek. The order runs to 100,000,000 annually.

The August, 1921, gross income of the Consumers Power Company, including the Michigan Light Company, was \$378,771, compared with \$277,853 for August, 1920. The balance, after subsidiary dividends, replacements and depreciation and preferred stock dividends of the parent company, was \$107,216, compared with \$22,847 for August, 1920. For the eight months ended August 31, 1921, balance after all charges was \$1,539,955, compared with \$771,248 for the similar period of 1920.

The consolidated balance sheet of the Detroit Edison Company, as of August 31, 1921, shows as follows: Assets. Real estate, plant and equipment, \$83,756,766; cash, \$2,104,148; notes receivable, \$31,710; accounts receivable, \$3,164,534; materials and supplies, \$4,395,409; prepaid accounts, \$763,109; investments and special advances, \$3,930,867; other assets, \$101,900; debt discount and expenses, \$5,209,595; deferred accounts, \$235,926—total, \$103,693,964. Liabilities: Capital stock, \$27,970,200; funded debt, \$64,341,300; notes payable and acceptances, \$2,346,191; accounts payable, \$1,415,266; accrued liabilities, \$2,146,731; permanent and corporate reserves, \$55,765; operating reserves, \$3,316,921; profit and loss surplus, \$2,102,220—total, \$103,693,964.

## Decision Under Anti Dumping Act

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 19, 1921.—The Secretary of the Treasury in an opinion just handed down has declared that the paper making industry in this country is likely to be injured by reason of the importation of goat skin parchment paper. The decision is the first of its kind under the anti-dumping act of 1921, and because of its importance a memorandum is quoted herewith which has been sent to collectors of customs regarding this decision.

"Section 201 (a) of the Anti-dumping Act, 1921, provides as follows:

"Section 201 (a) That whenever the Secretary of the Treasury (hereinafter in this Act called the 'Secretary'), after such investigation as he deems necessary, finds that an industry in the United States or elsewhere at less than its fair value, then he shall established, by reason of the importation into the United States of a class or kind of foreign merchandise, and that merchandise of such class or kind is being sold or is likely to be sold in the United States or elsewhere at less than its fair value, then he shall make such finding public to the extent he deems necessary, together with a description of the class or kind of merchandise to which it applies in such detail as may be necessary for the guidance of the appraising officers.

"After due investigation I find that the paper making industry in the United States is being or is likely to be injured, by reason of the importation into the United States of goatskin parchment paper, first and second quality, manufactured by Wiggins, Teape and Company, Limited, London, England, and that such merchandise was sold and is likely to be sold in the United States at less than its fair value.

"For any further description of this particular merchandise, appraising officers will communicate with the Comparative Valuation Reports Bureau at New York, where samples are on file."

## Charles A. Esty Paper Co. Send Out Sample Books

WORCESTER, Mass., October 17, 1921.—The Charles A. Esty Paper Company is mailing out Advance Bond sample books, together with an attached photogravure letter on No. 20 unglazed Advance Bond. This is a new line of the L. L. Brown Company that the Charles A. Esty Paper Company have recently taken on, and with which in this short time it is having very gratifying success.



## *“As Good as Calco”—*

Any dyestuff or intermediate so characterized, makes you realize that Calco products — Calco Methylene Blue or Calco Beta Napthol, for example—are accepted as standard. This is due to the fixed Calco policy, adhered to from the start, of not placing a single Calco product on the market until facilities, both of plant and personnel, assured its manufacture in sufficient quantities to meet every demand without sacrifice of uniform high quality.

“As good as Calco” is as high a recommendation as can be applied to a dye or an intermediate. But to be doubly sure, see that the Calco Red Diamond is on every container you buy.

*We shall be glad to quote prices  
and send samples and dyeings  
of any colors from our line*

**THE CALCO CHEMICAL COMPANY**  
**Bound Brook N. J.**

*New York Boston Philadelphia Chicago*

## PAPER DEMAND IN TORONTO IS CONSTANTLY IMPROVING

**Doubt Has Given Way to Confidence and There Is More Optimism Regarding the Future Than There Has Been in a Long Time—September the Most Satisfactory Month That Jobbers Have Experienced This Year—Printers' Strike, Which Has Been in Progress for a Number of Months, Still Has Tendency to Restrict Business—This, However, May Be Settled Next Month.**

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, (Ontario, October 17, 1921).—The outlook is improving all the time and there is more optimism in evidence than there has been for a long time. Doubt is giving way to confidence and September was one of the best months which the jobbers have had this year. Nearly all the Toronto wholesalers were away in Montreal during the past week attending the annual gathering of the Canadian Paper Trade Association. There, the situation, particularly with regard to fine papers was fully discussed, and it is felt that prices have struck bottom and any changes in the future will likely be in the nature of an advance rather than a reduction.

While the forthcoming Dominion elections, which will be held in December, will no doubt disturb many lines of trade, there is little fear that the paper or the printing business will suffer. The demand for news print will be greatly increased while many posters, pamphlets, cards, and other printed literature will be brought into general requisition. The printers' strike is still in progress in Toronto, having been going on for five months now, but there are rumors that a settlement may be effected about the first of next month. It is felt that all sides are losing money.

The waste paper market steadily improves and reports in all allied lines such as manufacturing stationers, envelope makers, toilet and tissue producers, and others are doing a much better business than they were a month or six weeks ago and it is expected that from this continued activity will be the watchword. It must be remembered that things in the pulp and paper line are still a long way from being what they were a year ago, but the pendulum has swung in the opposite direction from which it was swinging all summer and with stabilization of quotations and a cessation from price cutting, there is a fair amount of business for all.

### Gummed Papers Going to Capacity

Gummed Papers, Limited, which was visited by a serious fire several weeks ago at Brampton, is now running to capacity. E. R. Colbert, manager of the company, says while the blaze was a disastrous one, the machinery was not injured and the building is now in good shape again. The firm, which turns out cloth lined papers, stay papers, waterproof papers as well as gummed paper and cloth tapes, reports that business has been picking up rapidly. The prospects look good for the coming season and the company expects to operate with a larger force than ever before.

### Timber Commission Resumesittings

After an adjournment of many months the Timber Commission began sittings in Toronto last week. James McCreary, a lumberman of Sudbury, stated that he had received a thousand dollars to withdraw his tender on the Groves and St. Louis timber areas, from Wilbert Cochrane, who was a joint tenderer with the Spanish River Pulp and Paper Mills. Col. Thomas Gibson, of Toronto, vice-president of the Spanish

River Pulp and Paper Mills, told the Commission of Cochrane's connection with the Spanish River Company as a joint tenderer, Cochrane getting the pine on the limits and the company the balsam and spruce. Col. Gibson contended that it was a perfectly legitimate thing to secure the withdrawal of Mr. McCreary's tender. He was prepared to give instances of where such practices had been upheld by the courts. The Commission will finish at as early a date as possible all cases before them, but will not widen the scope of the present probe which has been going on intermittently for the past year and over.

### Mattagami Plant Is Producing Pulp

The Mattagami Pulp and Paper Company, whose plant is at Smooth Rock Falls, Ont., has resumed operations after being closed down for a couple of weeks. The mill is turning out about one hundred and thirty tons of unbleached sulphite daily and reports that there has been some improvement in the market. The Mattagami Company is taking out quite a quantity of pulpwood this season, the work being done through jobbers. Formerly the company conducted its own camps. S. A. Armstrong, of Toronto, vice-president of the company, who was ill for the past few days, is able to be at his desk again.

### Ontario Launches Big Law Suit

The Attorney-General of Ontario and the Minister of Lands and Forests on behalf of Ontario, are suing the Shevlin-Clarke Company, of Fort Frances, for \$250,000 for pine alleged to have been wrongfully cut on timber berths, 45 and 49, Quetico forest reserve. The Crown also seeks payment for all timber cut or about to be cut hereafter on these berths at the fair value of timber on August 30, 1919, the date on which the license was issued. The Shevlin-Clarke Company denies that it owes anything to the government and states that it was carrying on, at the request of the Crown officers, a practical test for the removal of slash or debris left after lumbering operations. The case is now ready for trial. It has been the practice of lumbermen to leave top branches and other waste on the ground when the timber is removed. This becomes highly inflammable and has been the cause of destroying vast quantities of standing timber and pulpwood upon Crown lands. Officers of the Crown, knowing that the Shevlin-Clarke Company had had considerable experience in removing this slash and knowing no other lumbermen in Ontario who had, approached the Shevlin-Clarke Company, so the latter contend, with a request that they should carry on a practical test for the removal of slash as an effective means of minimizing the fire risk.

### Woods Operations Are Very Quiet

Owing to the quietness in lumbering and pulpwood camps in Northern Ontario this season, there is a serious unemployment among horses. It is said that between Sault Ste Marie and North Bay, there are eight hundred heavy working horses for which there is no work and no sale, due to the almost complete cessation of work in the woods. The horses are now a drug on the market and animals, which two years ago brought \$500 to \$700 a team, can be had today from \$200 to \$300.

### Lower Costs in Pulpwood Production

Owing to the drop in wages of woodsmen—skilled workmen being employed at \$30 a month and ordinary labor at a dollar a day and board—lumbering and pulpwood companies in Northern Ontario are able to cut, haul and drive logs for approximately 40 per cent of the amount paid a year ago. Added to this is the increase in working efficiency, which

(Continued on page 24)



# *A Yankee*

*will surprise you  
with its versatility*



*Ask Yankee Headquarters  
at  
Beloit, Wis.*



## CHICAGO DEMAND FOR PAPER IS CONSTANTLY EXPANDING

**Jobbers Feel Confident that the 'Turning Point Has Been Reached and that from Now On Demand for Paper Will Be More Active--Reports from the Mill Sections Are to the Effect that the Situation Has Greatly Improved Recently and that a Continuance of the Improvement Is Expected--Charles G. Palmer Co. Opens New Office and Warehouse--Prospect of Printers' Strike.**

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, October 17, 1921. The better situation reported as obtaining in this market recently continues without any immediate signs of abatement. The jobbers here feel certain that the turning point has been reached and that from now on more active buying will be very evident.

The trade is feeling much more confident of a better future than it did a few weeks ago. Several of the jobbing houses say that they are doing better business than they have done for some time and expected it to continue to grow better. All grades of paper are moving better, it is said. Of course, some lines are dominating the market just now, but there is an improved trend noticeable in all lines.

Wrapping papers are said to be finding an easier market as well as tissues and toiles. Printing and book papers have not been finding as heavy a demand as was expected of them, though even here advancement has been noted.

Members of the trade who have visited the mills recently report a much improved situation in the mill districts with a looked for continuance of improved conditions.

Stocks in warehouses are reported low and the buyers are in the market filling these up.

### Prospects of Printers' Strike

Many of the Chicago paper men are asking whether there is going to be a printers' strike in Chicago, November 5. On that date the contract of six months' duration drawn up between the unions and the Franklin Division of the Franklin Typotheta of Chicago, representing the closed shop printing houses here, expires. The printers themselves are reluctant to answer this question just now. Meetings are being held and the unions and printers are attempting to come to a new agreement. The printers say that perhaps the unions will have some remedial offer to make and the unions say the same thing of the printers. However, it is expected here that there will be developments before the first of the month.

### Charles G. Palmer Co. Opens Office

Charles G. Palmer, identified with the paper trade for many years in Minneapolis, St. Paul and Chicago, has just opened an office at 738 First National Bank Building here and has warehouse space at 748 South Clinton street. He is handling a line of paper towels, toiles and paper napkins. The new company will be operated under the title of the Chas. G. Palmer Company, not incorporated. Mr. Palmer has a wide acquaintance among the trade in the Middle West and success in his new venture is assured.

### General Trade Notes

Frank Sanborn, Chicago sales manager of the Ideal Coated Paper Company, has just returned from a trip to St. Louis. He reports business not so good there as in this section of the country.

H. T. Anderson, who formerly was identified with the Victory Bag and Paper Company of Marionette, Wis., is now a

member of the Ideal Coated Paper Company sales staff, working out of the Chicago office calling on local trade.

Friends of Geo. H. Miller, president of the Miller Fiber Products Company, were pleased to receive news of the recovery from a recent illness from which Mr. Miller has been suffering. Mr. Miller has been confined to his home for the past month with pneumonia.

Chicago friends of John F. Holman, identified with the Eddy Paper Company, Three Rivers, Mich., have taken a great deal of interest in the rumor which has been circulating about the city to the effect that Mr. Holman took unto himself a wife. The wedding, according to all the data available here, took place in Three Rivers, Monday, October 10.

Harry Williams, Chicago manager of the C. L. La Boiteaux Company, demonstrated some of the La Boiteaux pep recently when he found it necessary to go to Browns Lake, Wis., by airplane in order to keep an appointment.

Walter Trafton, identified in this territory with Stoke & Smith Machinery Company, left Monday, October 10, for the South where he will call on the trade and visit his home. He does not expect to be back in Chicago until the first of the year.

Dick Croteau, president of the Mills Pulp and Paper Company, paid a visit to the mills in Wisconsin last week. He called at Green Bay and Rhinelander while on his trip.

H. W. Brightman, with the Northern Paper Mills, Green Bay, Wis., paid a visit to Chicago last week.

Ward Black, identified with John Hoberg Company, of Green Bay, Wis., spent a couple of days in Chicago on a business trip last week.

The Central States Paper Trade Association will hold a meeting at the Drake Hotel, Monday, October 31. This will be one of the first of several meetings to be held here during the fall paper conference, October 31 to November 3.

## PAPER DEMAND BETTER IN TORONTO

(Continued from page 22)

is due to the present surplus of men and the accompanying necessity for those on the payroll to work hard in order to hold their jobs.

### Company Increased Pulp Tonnage

Hon. T. W. McGarry, of Toronto, president of the Whalen Pulp and Paper Company, whose mills are located in British Columbia, submitted figures at the annual meeting held last week in which it was shown that the organization had had a very successful year. No change in policy was decided upon. Mr. McGarry stated that the physical condition of the company was in good shape and also reported that, during the year, the sum of \$858,735 had been expended on capital improvements. He added that no further capital expenditure would be made unless essential to the prosperity of the industry. The company's production of pulp last year was 51,731 as against 47,962 tons the preceding year.

### Big Dam Will Provide Power

The big dam at Kenogamish Lake near the head waters of the Mattagami river has been completed, the final layer of concrete having been poured last week. The dam is calculated to back the water up about thirty miles and raise the level some ten feet. Officials of the Northern Canadian Power Company believe this is adequate provision for ample Hydro-electric power throughout the winter provided the fall does not turn exceptionally dry.

Ben Logie, manager of the Toronto branch of the E. B. Eddy Company, of Hull, Que., who has been ill for some time, is able to resume his duties.

# J. Andersen & Co.

21 East 40th St., New York, N.Y.

## A-1 Bleached Sulphite

Agents for  
**KELLNER-PARTINGTON PAPER PULP CO. LTD.**  
Borregaard, Norway

# WAYAGAMACK

## KRAFT PULP

*Uniform in Quality*  
*Essential for Strength Requirement*

### The Pulp and Paper Trading Company

21 East 40th St., New York, N. Y.

Sole Agents for United States for  
**CANADIAN KRAFT, Ltd.**                      **Three Rivers, Canada**

## IMPROVEMENT CONTINUES IN PHILADELPHIA TRADE

**While the Degree of Optimism in the Trade Varies, There Are Really No Representative Distributors Who Do Not Recognize in Existing Conditions Recovery From the Depression of the First Three Quarters of the Year—Old News Is Reduced \$1 Per Ton, But Dealers Are Not Disturbed by This Fact, as They Believe the Recession Will Be Only Temporary—Fine Division Meets.**

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, October 18, 1921—Continuation of the upward movement in demand with the larger portion of the gain falling into the fine paper division, a stiffening of prices and some slight advances particularly in book by mills hitherto below the general market price and a substantial increase in mill demand for the better grades of paper stock while prices on some of the cheaper grades eased off slightly pending absorption of stocks now on hand by the mills, summarizes the week's experiences of the paper distributors and the related paper stock industry. It is true that the actual business of the week showed a slight falling off in dollars and cents from the preceding and yet business was better, the apparent discrepancy being solely due to the interruption incident to Columbus Day and the solemn Jewish holidays which caused a two day suspension of all commercial activities. But business on the whole before and after these holidays, showed a most satisfactory increase in daily sales and the tone of real substantial and continuing prosperity. Indeed at the close of the week, trade may be said to have been close to the normal, taking as the standard of comparison of course, the average of say the last five years even though two of those years ran far ahead of the average of the others.

While the degree of optimism in the trade varies, there are really no representative distributors who do not recognize in existing conditions, recovery from the depression of the first three quarters of the year.

### Better Demand for All Varieties

Improvement of demand has come from all classes of consumers, the printing trade showing during the past week the largest increase. Business is excellent for out of town deliveries and decidedly improved for the city trade although the distributors are none the less of opinion that if printing prices were revised downward as have been all other commodities, there would result a large increase in paper buying. Prices of printing, however, remain almost at the peak. Despite that fact, however, sales urgencies brought into the market for competitive bidding, a number of large contracts, particularly for catalogues which could no longer be held back. Of course the paper distributors felt the gain immediately because there are few printers who still have on hand an accumulation of stock from which to fill orders.

Inquiries for the work being estimated upon were numerous because printers are doing considerable shopping about in the hope of affecting savings in cost. They found, however, that book paper prices everywhere were firmly maintained. The western mills which some weeks ago withdrew all their quotations issued new ones during the week. The new prices show an advance but only to the point of a parity with the eastern book mills issued a month or more ago. There were no real advances in fine paper during the week. All grades held firm.

The coarse paper market improved further during the week with prices steady to firm on all grades and advanced on a few. The Crystal Paper Company announced a decided increase on its tissue prices. The Shelton Paper Company also advanced quotations on its corrugated papers. The tendency of the whole class

of building papers was to strengthen, and in a few cases actually to advance fractionally. The cheaper grades of Kraft papers too rose slightly in price.

### Old News Reduced

Though the mill price locally for mixed, commons and old news was reduced \$1 a ton at the beginning of the week, the stock-dealers were not at all disturbed by that fact. They believe the recession to be only temporary and due solely to the fact that the mills were able to secure a sufficient quantity of stock for present needs and therefore reduced prices until existing supplies are used up. The stock dealers are confident that within a week or so the mills again will be in the market for raw materials and that it will be necessary to restore the price to the former level at \$10 a ton to bring out shipments. Even at this price, the stock dealers say not much stock can be secured since it is not high enough. Hard and soft white shavings of both grades advanced in price from a quarter to a half cent. Ledgers, writings book stock and container followed suit. Old Kraft and over issue news alone maintained old prices although sales generally were at the outside rather than the inside quotations.

### Fine Paper Division Meets

The entirely satisfactory conditions existing in the fine paper divisions were discussed at the meeting on Thursday noon last of the Fine Paper division of the Philadelphia Paper Trade Association, the first held since it was determined henceforth to have a definite subject assigned for each meeting and to connect up the programs into a continuity of purpose. There was only informal discussion of business conditions but there was consensus of opinion that unquestionably they had changed for the better and that the character of sales was such as to forecast a continuance of a healthful and steadily increasing business. The fact that no substantial reduction in prices had been made for the past two months was pointed out as justification for the opinion that the critical period in the industry had passed. There is, however, considerable opinion that in the future there will be further revision but none of a drastic character and that though prices would fall that would be very gradual and extending over a long period of time. It was decided that the first meeting, two weeks hence, under the new program should be devoted to a symposium on Trade Customs, to be presided over by Leon Beck of the Charles Beck Company and to receive and discuss a special report on the matter to be made by William S. Wilcox, of the D. L. Ward Company.

### Paper Stock Dealers Meet

The Paper Stock Dealers' Association met during the week for the first time since the summer recess. Because of the Jewish holidays, the attendance was restricted. There are ample funds in the treasury, however, and there resulted an interesting discussion as to the best way to place it in circulation before the close of the year. Majority opinion was against a repetition of the supper and theatre party enjoyed last year and rather favored an informal shore dinner. This function, however, will be merely supplemental to and will not displace, the annual banquet which is to be held in February. It was decided to postpone final action until the meeting next month. It was announced that A. Rose & Son, whose financial embarrassment previously was reported were in receipt of pledges of financial assistance so that they were in a position to offer an immediate 40 per cent cash settlement instead of the 20 per cent cash and 20 per cent in guaranteed notes extending over the period of a year, previously offered. President Evan G. Badger announced the wedding of his son and associate, Benjamin Badger, who is now on his honeymoon.

### Changes in D. L. Ward Co. Sales Force

Readjustments of personnel to meet the new conditions of the industry continue to be made by the D. L. Ward Company. Du

(Continued on page 28)



## This Engineer Was Mistaken as to what Heine Large-Unit Boilers can do

**HE** CLAIMED he was entirely familiar with the Heine Boiler and what it could do. Why shouldn't he be? He had had charge of one of them for the last ten years. But he was not satisfied with its overload capacity, and scoffed at the idea of obtaining 300% of rating with a respectable efficiency.

The engineer then took our representative down into his boiler room to show him. His proof was:—a 350-hp. Heine Boiler built fifteen years ago, with baffling arranged according to the practice of that day, and the boiler set only six feet above the grate! No wonder he couldn't get any considerable overload!

Our representative "opened" this engineer's eyes when he showed him a report of an official test, in which, *under actual working conditions* a 950-hp. Heine Large-Unit Boiler, from a banked fire, attained 300% of rating in 4 min. 23 sec.—and maintained this rating until the stoker ceased to function due to poor fuel. (This test was made by Mr. George H. Perkins, Consulting Engineer, of Boston).

Finally our representative prevailed upon this engineer to pay a visit to a plant in his own city, where Heine Large-Unit Boilers are installed according to modern practice. He learned of up-to-date baffles and settings, and saw that a 300% rated load was being carried with little loss of efficiency.

That engineer is now convinced.

**Heine Boiler Company, St. Louis, U. S. A.**

New York Boston Chicago Cincinnati New Orleans Philadelphia Pittsburgh Detroit Cleveland  
Also Agencies in many other cities

2012

# HEINE LARGE UNIT BOILERS

## IMPROVEMENT CONTINUES IN PHILADELPHIA TRADE

(Continued from page 26)

ing the week five salesmen connected with the wrapping paper department severed their connection with the firm but immediately found positions elsewhere, in fact were aided in that by E. T. Walter, head of the department. The salesmen with others were taken on by the firm two years ago at the time when it made the very elaborate and exhaustive survey, published in *The Paper Trade Journal*, of the wrapping paper consumption in Philadelphia and closely contiguous territory. Out of that survey came a Ward campaign for the business of the smaller purchasers of coarse papers. The firm has decided that it is no longer expedient to cover this field as thoroughly as before and therefore the sales force was reduced. Eugene Rowe and Harry Myers found new positions with the Enterprise Paper Company, John Doherty joined the sales force of the Paper Manufacturers Company, Joseph Heinstein went with the Saxe Paper Company and William Kulp found a position with F. W. Winne. Sparta Print was transferred from the floor to the out of town department.

### General News of the Trade

The directors of the Argo Paper Mills Corporation which is to engage in the manufacture of news print immediately for the *North American* and the *Record* and after their wants are supplied, the general market, met on Friday afternoon last at the mill in Gloucester, N. J. Only routine business was transacted consisting mainly of the approval of bills for machinery, alterations and the like. President Waite reported that the contractor for the alterations was in advance of his time and that there was every reason for believing that production would begin early in the new year. The first floor of the finishing room has been entirely completed and is ready for the installation of machinery the arrival of which is expected this or next month. The paper machines will not be installed until early next month.

B. C. Potts, statistician and salesman for S. S. Garrett coarse papers, Third and Spruce streets, has accepted a position on the sales force of the Garrett-Buchanan Company.

The Keystone Mill at Upper Darby, which recently returned to the manufacture of medium priced book is operating full on this grade. The mill made book papers many years ago but afterwards turned to waterleaf production.

Lindsay Brothers are preparing a new sample book embracing the complete line of their stock. Many of the fine papers will be printed and engraved to show the qualities of the paper for line and half tone work.

The Charles Beck Company during the week added to its stock the Surety super calender red book, a low priced Beck brand selling at 9½ cents. The firm is about to issue a new catalog and price list showing substantial reductions in prices from the last issue.

President Allen E. Whiting, of the Whiting-Patterson Company, and also of the Paper Trade Association and finally of the American Envelope Manufacturers' Association, returned during the week from the annual meeting of the last named, bringing back a cold which confined him to his home for the week. He was runner up in the golf tournament which preceded the meeting, winning a silver cup. C. Sharpless Jones, treasurer of the company, goes this week to Barnegat on a duck shooting trip.

The Industrial Committee of the Chamber of Commerce has arranged for a tour of inspection of the Philadelphia paper mills this week by the students of the Pennsylvania State College under the escort of Sheridan Taylor, secretary of the committee.

John A. O'Neill, of the Paper Manufacturers' Company, 520 Cherry street, returned last week from a belated vacation at Atlantic City. James P. McKee has been assigned to the sales department of the die wiping paper division.

Trade visitors of the week included E. C. Walker, the Collins Manufacturing Company, Representative Mulford, Crane & Co., Dalton, Mass.; D. J. Tracy, Temple Paper Company, New York, and C. B. Brown, Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.

### Tester of Board Patented

Ernst Kirchner, of Chemnitz, has obtained German patent No. 338,298 on a card board tester. The machine tests the flexibility of the board and fixes the breaking point, by measuring the resistance when bent. In the accompanying cut showing the machine the basic plate is marked G, holding within the fastenings of C and C' a revolving rod marked J which also passes through a fixed

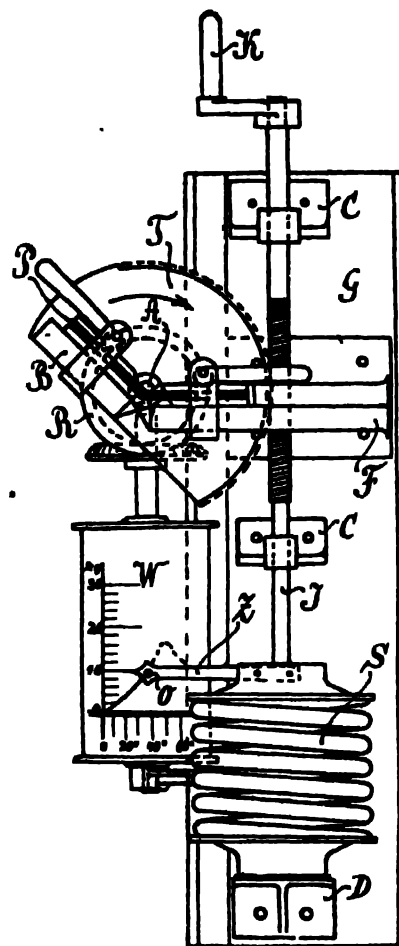


plate marked F and ends in D. To the latter a spring, marked S, is attached. The indicator is marked Z and the attached pen, I writing down the indicated resistance is marked O. Rod J may be moved to or fro slightly within C. To plate F is attached a perpendicular plate upon the board to be tested held by clamps. The board to be tested is marked P. Revolving around an axis marked A is a plate, marked B, with an horizontal table marked T and a clamp. The rim of the table is grooved and responds when rod J is turned by handle K. Thus plate B will revolve around axis A. When the operation begins B and F are formed a straight line, thereby permitting the placing in position of the card board and the clamping of the same. In bending the resistance overcome expands the spring. The wheel R connects with the indicator which records at the same time.

# When White Water Writes Red —

White water unchecked in its journey to the river writes a red-ink entry on your books. The loss may be hidden, but it is just as surely there. Profits are being allowed to run away.

This loss is needless. The profit may be saved.

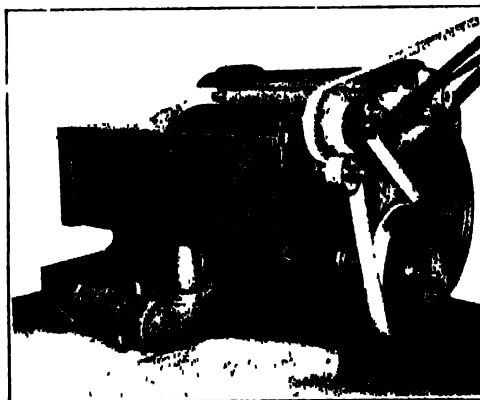
The method is simple and easy to use. Pass the white water through a BIRD SAVE-ALL. This is inexpensive, effective, dependable. It is a common sense pulp saver which catches the fibres and puts them back into your paper.

Can you afford to permit your white water to be writing red?

## THE BIRD MACHINE COMPANY SOUTH WALPOLE MASSACHUSETTS

*Western Representative*  
T. H. Savery, Jr., 1718 Republic Bldg.,  
Chicago, Ill.

*Canadian Builders of Bird Machines*  
Canadian Paper & Pulp Co., Ltd.  
60 St. James St. Montreal, Canada



# THE BIRD SAVE-ALL

## Obituary

### John G. Luke

John G. Luke, for many years president of West Virginia Pulp and Paper Company, died at St. Luke's Hospital in New York, October 15, following an operation for appendicitis.

In the death of Mr. Luke the book paper industry has lost one of its most splendid ornaments, for he was indeed one of God's own noble men. He was a pioneer in the book paper industry. It might truthfully be said of him that he was born and reared



JOHN G. LUKE

in the environment of a paper mill, for his father and grandfather before him were engaged in the same occupation.

Mr. Luke was born in Springfield, Mass., April 29, 1857. Like many successful business men, Mr. Luke was thrown on his own resources early in life. His first effort in the paper industry was at the age of 16 years, when he was employed in the mill of the Jessup & Moore Paper Company at Rockland, Del., of which his father was superintendent at the time. Here he served for some seven years. Later he became superintendent of the paper mill of the Mead & Nixon Company of Dayton, Ohio, then of the Morrison & Cass Paper Company of Tyrone, Pa.; later of the Premaker-Moore Paper Company of Louisville, Ky., and later still of the Richmond Paper Company at Providence, R. I. In the aggregate he served for some 15 years in these several mills. During these years of service and hardship, his splendid character developed; his active and thirsty mind absorbed an intimate knowledge of the paper industry, and his ambition to do something big in the paper industry intensified,—an ambition splendidly realized in the later years of his life.

With this splendid experience as a foundation, and urged on by this laudable ambition, he, in conjunction with his father and brothers, organized a company and built a mill at Piedmont, W. Va., in 1889, for the manufacture of sulphate pulp. This was but a modest beginning, but by the exercise of a genius seldom equalled, by untiring industry and stern courage, by conforming at all times to the dictates of truth and honor, and by the splendid co-operation of his brothers and other business associates, his great ambition was realized at last in the splendid company of which he died president and of which he was so justly proud.

Of Scotch ancestry, Mr. Luke was clear-minded, forceful,

industrious, determined, successful, yet no man was more generous, more modest, more gentle. To have known him intimately was at once an honor and an inspiration. He had a splendid confidence in human nature. He trusted his friends and associates with a faith that could not be shaken. His friends trusted him without reserve. With him from a friendship once formed there was no turning.

That he will be greatly missed there is no doubt, yet to those who knew him most intimately, and hence will miss him most sorely, there remains the consolation of his splendid life and character which are at once a priceless heritage and an inspiration.

### Bids and Awards for Paper

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 17, 1921.—The Purchasing Officer of the Government Printing Office has received the following paper bids:

750 pounds 24 x 36—60 pounds Plate Wiping Paper in 5" and 8" rolls. The Whitaker Paper Company, \$0.77 and \$0.764 per pound; Geo. W. Millar & Co., \$0.09; Old Dominion Paper Company, \$0.774, and Paper Manufacturers Company, \$0.75.

The Government Printing Office has received the following bids for 1,000 pounds of 26½" x 41—100, light green coated cover paper, George W. Millar & Co., at \$1.13 per pound, R. P. Andrews Paper Company, at \$.12, and Coy. Hunt & Co., at \$.117.

Bids will be opened at the Printing Office on October 21, for the following paper: 10,000 pounds (8,000 sheets) of No. 2, 25 x 30 No. 40 binders board.

50,000 pounds (50,000 sheets) of 26 x 38—No. 50 chip board.

2,600 pounds (100 reams) of 22 x 34—26, high M F green writing paper.

The Republic Bag and Paper Company has been awarded the contract for furnishing offset paper at \$0.675 per pound, bids for which were opened on September 30.

The Mathers Lamm Paper Company has been awarded the contract by the Purchasing Officer of the Government Printing Office for furnishing 1,500 pounds of back lining paper in 24" rolls at 3½ cents per pound, bids for which were opened on October 3. The Paper Manufacturers' Company will furnish 750 pounds of plate wiping paper in 5 and 8 inch rolls at 7½ cents per pound, bids for which were opened on October 7.

### Keith Paper Co. Celebrates 50th Anniversary

[FROM OUR REGULAR CORRESPONDENT.]

TURNERS FALLS, Mass., October 17, 1921.—The recent gathering of the directors of the Keith Paper Company of this town to celebrate the fiftieth anniversary of the concern was a meeting of unusual interest.

In reviewing the history of the concern it was brought out that there have been but three presidents during its half-century existence. John Keith, the founder, was succeeded by Alexander H. Rice, at one time governor of Massachusetts, who served until his death, when he was succeeded by Albrecht Pagenstecher of New York, who is still head of the concern.

The directors inspected the mill of the concern and later dined at the Weldon Hotel in Greenfield. The company employs a large force of men, seldom if ever disturbed by labor troubles.

### Wausau Paper Co. Gets Logging Contract

APPLETON, Wis., October 17, 1921.—The Wausau Paper Mills Company, Brokaw, has awarded contracts for about 2,500,000 feet of logs to be cut this winter. Most of the logging will be clean-up operations on areas logged in previous winters and it is doubtful if new territory will be opened this year. Other companies also are preparing for the logging season, but it is said operations will not be on nearly as extensive a scale as a year ago.

Established 1886

## Confidence

**C**ONFIDENCE is an asset of paramount importance in mercantile and industrial development. The whole march of civilization rests, in last analysis, on the confidence that men repose in their governments, their laws, their institutions—and in each other.

**M**ONEY and credit are confidence; orders, delivery dates, fulfillment of specifications—all these are confidence.

**A** BUSINESS gains strength not only through an increasing clientele but through the increasing confidence of that clientele. And the only way to win this confidence is by maintaining a standard of merit through the years.

## M. GOTTESMAN & COMPANY

INCORPORATED

18 East 41st Street  
New York, N. Y.

### BRANCHES AT

Holyoke, Mass.  
Kalamazoo, Mich.

# THE COOKING OF RAGS\*

BY HERMANN GRIMM

The earliest fibers which were used for the manufacture of paper were cotton, flax and hemp, either in the form of waste from the spinning and weaving factories, that is waste new material, or in the form of old, discarded material, such as rags, cordage, etc.

The use of rags is of such early origin that there has been little scientific investigation into the nature of the changes in these fibers during the purification processes which are necessary to produce an easy bleaching fiber of the greatest strength, conditions essential to the papermaking industry. On the other hand, the fibers which have been more recently introduced into the industry, such as straw and wood, have been carefully studied, specially as relates to the process of cooking and the changes involved therein.

The purpose of the present investigation is thoroughly to study the cooking processes ordinarily employed in the industry and to determine, if possible, whether these methods are the most efficient or whether they might be modified to give better production results.

## Earliest Practice

In the very early days, the raw material (rags) was subjected to a putrefying or fermenting action, sometimes in the presence of lime, after which the product was thoroughly washed; later the putrefying process was replaced by boiling with bases, principally lime.

The earliest authors to deal with this question are G. F. Wehrs, in his treatise "Vom Papier," Gebauer, Halle, 1789, and de la Lande in his book "Die Kunst, Papier zu machen," which is mentioned by Kirchner in "Das Papier," III, Halbstofflehre, 1910. Then follows Gabriel Plancke ("Ueber Papierfabrikation," translated by Rudel, 1854), who discusses (page 113) the cooking of rags with soda and potash. He also mentions the use of lime, gives figures on the solubility of lime and compares the lime process with that in which soda is used. He carried out the cooking process (page 119) in two steps, blowing off the first liquor and then cooking at a higher pressure (up to 3 atmospheres) (so-called cooking in stages). He gives (pages 123-125) the following directions for fermenting the rags: 24 hours' steeping, allowing the material to lay in piles for 3 to 4 weeks, turning it over every week so that the outer layers are in the center and *vice versa*. Each time the pile is moistened.

The great losses involved in the fermentation process and the weakening of the resulting fibers caused the abandonment of the method.

## Piette's Work

Piette (Die Fabrikation des Papiers, Kohn, 1861) gives about the same procedure and mentions in particular the disagreeable odors and the great loss of time as compared with the cooking process. He gives a complete description of the fermenting process—warming, fungi formation, etc.—and employed lime for the preservation of rags which had fermented too long. He then describes in detail a method for cooking with lime and with soda and critically discusses the action of these agents. Calcined soda does not dissolve fats but reacts only with the free fatty acids, forming sodium soaps, with fats there is an emulsifying effect which gives a satisfactory but a very slow reaction. Caustic soda saponifies fats, resins, etc., and destroys the incrusting material, the greater portion of the coloring matters and the animal fibers. Lime forms water-insoluble calcium soaps with the fats and resins and exercises a favorable action, since the solubility of the lime is low. Piette cooked with 0.5 to 4 per cent soda at 3

atmospheres for 2 to 6 hours, or with 1 to 8 per cent lime at 3 atmospheres for 3 to 7 hours.

Mierzinski (Handbuch der praktischen Papierfabrikation, I, Leipzig, 1896) likewise used soda or lime for cooking rags; he suggested 0.6 to 6 per cent of soda and 2 to 15 per cent of lime, favors the use of lime, and the use of pressure. He suggests for the first time the use of sodium sulphide and water glass for cooking rags, by which process he claims a greater yield and a better colored product.

## Hoyer's Discussion

Hoyer (Die Fabrikation des Papiers, 1887) thoroughly agrees with the earlier writers as to the inadvisability of the use of the fermenting or putrefying process for purifying rags and following this discussion, treats of the action of various alkalies. In considering solubility relations and the action of the alkalies, he emphasizes the fact that in the case of soda the action is the strongest at the beginning of the reaction but that as the cooking process continues the action becomes weaker because the alkali is removed or consumed during the process. In the case of lime the behavior is different, since here the solubility of calcium oxide at 20° is only 0.123 gram per 100 grams of water. The solubility decreases as the temperature increases and at 120° is only 0.031 gram per 100 grams of water. Because an excess of lime is used at the beginning of the process, the solution process (lime in water) continues during the digestion and therefore the progress of the cook is fairly uniform. Hoyer warns against pressures higher than 4.5 atmospheres (150° C) and considers 3 atmospheres (135° C) the most favorable. In general the following rule holds: a more dilute liquor and a longer cooking period is better than more vigorous cooking for a shorter period. Hoyer also favored cooking in stages but, on the other hand, he rejected the then common practical use of lime and calcined soda, since they form insoluble calcium carbonate and sodium hydroxide, which caused unnecessary impurities in the cooked product.

## Results Since 1890

Muth (Jahrbuch der Papierindustrie, 1890) proposes to allow the rags to remain in piles after cooking, in this way the rags remain warm for some time, and the cooking liquor and the calcium soaps drain off to a large degree. Because of the slight solubility of lime in water at higher temperatures, the lime is first allowed to act upon the rags in the cold, but the result of this process is not given.

Hofmann (Handbuch der Papierfabrikation, II, 1891) confirms the previous work and view concerning the action of putrefying agents. The greater strength of the paper prepared in that way as compared with that of the present time is due, according to Hofmann, to the treatment in the stampers, which did not cut or tear the fibers, but simply disintegrated the bundles of fibers, so that the individual fibers were their original length. He advises the use of "rotting" the rags only in those instances (page 63) where the cooking process was unable to produce a sufficiently soft pulp. Hofmann does not believe that the rotation of the digester is necessary. He used from 3 to 15 per cent of lime.

According to Dahlheim (Taschenbuch für den prakt. Papierfabrikanten, 1896) the "rotting" process should be used only for large and hard rags, which could not be beaten (stamped) without preliminary treatment. The process is similar to that described above. Dahlheim advises the use of 4 to 20 per cent of lime for fatty rags, 1 to 2 per cent for better rags, and scribes a favorable action to the undissolved lime during the digestion.

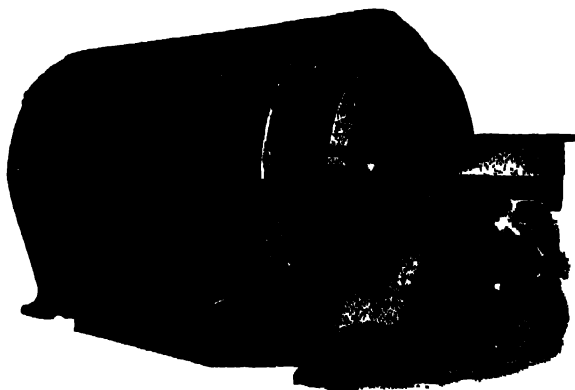
(Continued on page 34)

\*This article appeared in *Zellulose und Papier*, 1921, Nos. 1 and 2. Translated by Clarence J. West, National Research Council.

# "IMPCO" TAILING SCREENER

## FOR SCREENING GROUND WOOD TAILINGS

Very Low  
Power  
and  
Upkeep Expense



Delivers  
Rejections Free  
from Good  
Stock

ANOTHER UNIT OF OUR CLOSED SYSTEM FOR PULP SCREENING

WRITE FOR FULL DETAILS

CORRESPONDENCE A PLEASURE

**IMPROVED PAPER MACHINERY CO.** Nashua, N. H.  
SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA

# WHALEN SULPHITE PULPS

Made from the SITKA SPRUCE of BRITISH COLUMBIA  
Noted for Fibre, Color and Strength

**SNOWWHITE  
BLEACHED  
SULPHITE**

**GLACIER  
EASY BLEACHING  
SULPHITE**

**SWAN  
STRONG  
SULPHITE**

As exclusive Sales Agents for all of the products of the WHALEN PULP & PAPER MILLS, LTD., in addition to stocks at the mills, we will carry large stocks of the above well-known brands in New York, thus insuring prompt deliveries.

Your inquiries addressed to any of our offices will bring prompt quotations by wire.

**CANADIAN ROBERT DOLLAR CO., Limited**  
VANCOUVER, B. C.

### U. S. ADDRESSES

Robert Dollar Co., Robert Dollar Bldg., San Francisco.  
Robert Dollar Co., 15 Moore Street, New York, N. Y.  
Robert Dollar Co., Harris Trust Bldg., Chicago, Ill.  
Robert Dollar Co., L. C. Smith Bldg., Seattle, Wash.

### FOREIGN OFFICES

Robert Dollar Co.,  
Shanghai, Hong Kong,  
Hankow, Tientsin,  
Ichang, Chungking, and  
Pekin, China; Kobe,  
Japan; Calcutta, India;  
Manila, P. I.; Singapore,  
S. S.

## THE COOKING OF RAGS

(Continued from page 32)

because of the intimate contact of this with the fibers, friction may play a part in this action. The digestion process may vary from four to twelve hours. He advises as high a pressure as possible, since the decomposition is accelerated at higher temperatures and the air is more completely removed from the fibers. The loss with the production of bleached half-stuff is estimated to carry from 16 to 70 per cent.

Klemm (*Handbuch der Papierfabrikation*, 1910) devotes pages 92 to 109 of his book to this subject, but does not add anything new.

Kirchner (*Der Lumpenholzstoff*) thoroughly discusses the "rotting" process, likewise the digestion process, the liquors, etc., and confirms the views of earlier authors. He states that 1 per cent of sodium hydroxide (the maximum is 5 per cent), 2 per cent calcined soda or 5 to 7 per cent of lime should be used.

Dalen's discussion (See Weyl, *Einzelschriften zur chemischen Technologie "Papier,"* 1911) of the "rotting" process is similar to earlier accounts. He believes that it should be used today only for fibers intended for the manufacture of filter and blotting papers, because in these cases the strength of the fiber does not need to be so great but the absorptive properties must be very high, which is true of such fibers. In discussing the cooking processes he states that, in addition to the slight solubility of the lime, there is a further advantage in that the lime soaps carrying down with them the mechanical impurities in such form that they may be easily washed out, while in the case of soda and sodium hydroxide the particles of dirt which are liberated remain suspended in the liquor, and, in emptying the cooker, the rags act as a filter and retain all this material.

The periodical literature cannot be reviewed here, but the principal articles relating to the subject will be listed at the end of this work.

### Present Condition of the Industry

While the above would seem to indicate that there is considerable variation in regard to the most suitable chemicals, the concentration, the pressure and the time of digestion, there is in general a certain consensus of opinion upon these matters.

The "rotting" or fermentation of rags is, with few exceptions, used for the production of special grades of papers, such as filter, blotting, etc. Many things make its use impracticable, such as the loss of time, the room required, the disagreeable odors, the weakening of the fibers and the impossibility of exactly following the process. In general, today, the digestion process is carried out with soda, sodium hydroxide or lime or with a mixture of the last two under pressure in revolving digesters.

The rotating digesters are spherical iron vessels, which are provided with manholes for charging and which are heated with direct steam, entering through the trunnions. Each digester possesses a water and a steam inlet valve. In the steam line there is also a return valve in order to prevent the entrance of the cooking liquor. A manometer to read the cooking pressure, testing cocks and blow-off valves complete the equipment of the digesters.

Only general values and directions can be given for the treatment of the material, partly taken from practice and partly from Kirchner, mentioned above. Of great importance in the choice of chemicals is the degree of purity desired in the finished cook, whether it is to be colored or not, bleached or unbleached and finally the kind of fiber that is to be cooked.

When calcined soda is used, the usual figures are 0.75 to 1.25 per cent to 1 to 2 atmospheres, 1 to 4 hours cooking time and 1 to 8 hours steaming time (that is, the time from shutting off

the steam until the digester is blown at about 1 to 15 atmospheres pressure). The concentration varies, for the above figures, between 0.13 and 0.27 per cent with a digester of 9 cubic meters and 1,000 kilos of rags.

With sodium hydroxide the figures are. 0.6 to 1 per cent 3 to 4 atmospheres, 5 hours cooking and 9 hours steaming time. The concentration varies between 0.13 and 0.22 per cent.

In the case of lime, one uses from 2.5 to 8.75 per cent at 3 to 4 atmospheres, 3 to 6 hours cooking and 8 to 9 hours steaming time. The concentration varies between 0.5 and 1.8 per cent, figure which is based on the total amount of lime used, not upon the part which is in solution.

In case a combination lime sodium hydroxide cook is made, one would use from 2.5 to 7.5 per cent of lime, 0.44 to 1.4 per cent sodium hydroxide at 3 to 4 atmospheres, 4 to 6 hours cooking and 8 to 17 hours steaming time.

The yield of bleached half-stuff, based on the contents of the digester, varies between 50 and 95 per cent. Here, also, we find marked variations, since the amount and nature of the impurities, the nature of the beating process, and the conditions of washing vary and have a marked influence on the product.

### Purposes of Cooking; Unsolved Problems

The purpose of the cooking process is to free the fiber as completely as possible from all impurities and thus obtain pure, white half-stuff. Among the impurities are the incrustations of wood materials, plant fats and waxes, the sizing and finishing together with the dyes naturally occurring in the fibers as well as the artificial dyes. A third source of impurity is that collected during use, such as fats, sweat, dirt, oil, printing upon sacks or other packing materials, etc., together with transformation products of the cellulose, such as oxy- and hydroxycellulose.

The cooking process removes these impurities in part by neutralizing them, in part by dissolving them, also by saponification. There is also a loosening of the fibers. The products result from the destruction of the impurities are removed either when the digester is blown or when the half-stuff is washed. As has been mentioned, the chemicals to be used must be selected according to the nature of the material, the kind of fiber and the desired properties of the finished product. Soda ( $\text{Na}_2\text{CO}_3$ ) must be used with care, since it decreases somewhat the strength of the fiber, and since it does not readily attack animal fibers. This should be sorted out before introduction of the rags into the cooker, but if this is not done, they must be destroyed during the digestion process. The necessary use of a weak alkali has the disadvantage that the colors are only slightly affected. What a strong concentration of sodium hydroxide ( $\text{NaOH}$ ) attacks the plant cells more than in the case of soda, it also more completely destroys the animal fibers and dyes. It should be used with care and only where the presence of fats, oils, etc., demands it. Lime ( $\text{Ca(OH)}_2$ ) has the most favorable action upon plant fibers and at the same time has the advantage of completely destroying the animal fibers and most of the dyes. The disadvantage in connection with its use is the formation of insoluble calcium salts, while the salts of fatty acids with the alkalies are soluble. Washing with hot water and the proper mechanical treatment in later stages overcome this disadvantage, as will be discussed later.

The result of the cook is judged in many factories by washing and beating the half-stuff, at least by the bleaching process, the numbers or values which would lead to its classification are naturally not to be obtained. If any one factor is determined

(Continued on page 36)

# "DRYDEN" KRAFT PULP

Extra Strong, Long Pure  
Sulphate Fibre

Daily Capacity 120,000 Pounds

## KRAFT WRAPPING SHEATHING PAPERS

Daily Capacity 45,000 Pounds

The Dryden Pulp & Paper Co., Ltd.  
Dryden, Ontario, Canada

ALVAH MILLER, Pres. TOM T. WALLER, Vice-Pres.  
NATH'L L. MILLER, Secy-Treas.

## Craig-Becker Company INC.

Domestic and Foreign  
Ground Wood and  
Sulphite

52 VANDERBILT AVE.  
NEW YORK CITY

Mills at  
Mocanaqua, Penn.



Shickshinny, Penn.

## CREPE ABSORBO NAPKINS

Soft—pure white—perfectly absorbent  
—heavily creped.

We sell the jobbing trade only.  
Place your order today for some.

M. M. ELISH & CO., Inc.  
29 Beekman St. New York City

WRITE ELISH ABOUT NAPKINS

## WAXED PAPERS

WE ARE READY TO SERVE YOU



Manufacturers of

## WAXED PAPERS

Sheet or Rolls Plain or Printed

Waxed Lunch Rolls  
Pulp and Corrugated Cake Circles

Roll Printing—1 and 2 Colors  
Sheeting and Rewinding.

ALL SIZES

White Confectionery Bags, Glassine Bags  
Plain or Printed

DRAGON PAPER MFG. CO., INC.  
484 Van Alst Ave., Long Island City, N. Y.

GLASSINE BAGS

## New York Trade Jottings

The quarterly meeting of the Paper Association of New York City was held Wednesday at the Hotel Lafayette

\* \* \*

The West Virginia Paper Company closed its doors all day Tuesday in respect for its late and beloved president, John G. Luke.

\* \* \*

Atterbury Brothers, dealers in paper mill supplies, 145 Nassau street, have increased their capital stock from \$250,000 to \$500,000.

\* \* \*

Judge Mack Monday appointed Jesse W. Ehrlich receiver for Rockland Mills Paper Company, Inc., jobbers in paper, at 97 Prince street, under \$5,000 bond

\* \* \*

F. G. Marquardt, Inc., dealing in paper and paper stock at 116 West Thirty-second street, has assigned to James J. Boyd, 280 Broadway. Frederick G. Marquardt is president of the company, which was incorporated in 1917

\* \* \*

William H. Parsons, president of Parsons & Whittemore, Inc., sailed from New York on the Munson Line's new steamer, *Southern Cross*, on October 1, for Rio de Janeiro, Brazil. Mr. Parsons expects to visit the River Plate countries as well as Brazil

\* \* \*

John Matthews, prominently identified with the export paper business for a number of years, has associated himself with Parsons & Whittemore, Inc., commencing October 17. Mr. Matthews' experience in the export paper trade is well known and his association with Parsons & Whittemore should further strengthen their worldwide sales organization

\* \* \*

Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, spoke at the monthly meeting and luncheon of the Association of Trade Secretaries at the McAlpin Hotel, Tuesday noon, on the "Trade Association and the House Organ." In the course of his remarks Dr. Baker expressed it as his opinion that the association bulletins should never endeavor to usurp the place of the trade journals and that they should not seek to support themselves by carrying advertising. The most important function of the former, he stated, was to carry the official announcements of the associations while it was the province of the latter to cover the trade field in a general manner

\* \* \*

The Traffic Department of the Paper Association of New York City, in charge of P. G. Gaynor, traffic manager, has been rendering valuable assistance to members of the association for the past three years. The Department is one which is much needed by the trade. By performing its functions of auditing bills, filing claims, tracing shipments, furnishing routings, and other valuable services, it is serving a want long felt by the paper interests. Members who are not availing themselves of the facilities of the Bureau are neglecting a service well worth while to them. Although membership is confined to subscribers, paper jobbers and paper receivers not members of the association may join by application to Mr. Gaynor or Mr. Ridgway, secretary of the association

### THE COOKING OF RAGS

(Continued from page 34)

It is usually the decrease in the ash content and under certain conditions a quantitative investigation is made. The next question to be asked is which constituents of the fibers are changed, or

how have their properties been changed. Only a few methods are available, but with their assistance experiments have been made to follow the effect of the cooking process upon the fiber.

The natural fiber is usually rich in ash since the natural incrustation are of colloidal nature and are capable of absorbing much ash-forming material. If these incrustations are decreased during the digestion, the ash content which accompany them should also decrease; this does not consider the calcium carbonate which the fibers accumulate from the cooking progress, which, however, is lost, to a greater or less degree during the washing process. The fats and waxes, which are found in the used rags, behave similarly. Upon saponification and solution, the ash content decreases and the results of the digestion process may be controlled through these values. Fats and waxes are determined by extraction with alcohol and ether.

A further point of view as regards the course of the digestion may be obtained by the determination of the incrusting material, or a part of the same. Hexosans, which certainly are present, cannot be determined, but, on the other hand, the pentosans may be estimated by splitting off furfural with 13 per cent hydrochloric acid. Different methods have been proposed for this, of which the determination of the methyl number is the best. This method is not feasible, however, on account of the high cost of hydrochloric acid. The method of Koenig is therefore used in most cases, a method which requires much time and which does not give satisfactory results. In the case of some of the fibers a much simpler and therefore more suitable method, from the point of view of the industry, has been studied. This will be discussed below.

In order to examine the course of the reaction and to determine the effect of various factors, such as changes, in the liquor, pressure, cooking time, etc., a series of laboratory and works experiments were conducted, using six different raw materials. These were new wastes from the textile industry, and therefore did not contain the impurities collected through use, but only the incrusting material and the constituents added in the process of manufacture. The first step was to determine the constants of the raw material.

(To be continued)

### Turners Falls Mills Obligated to Close

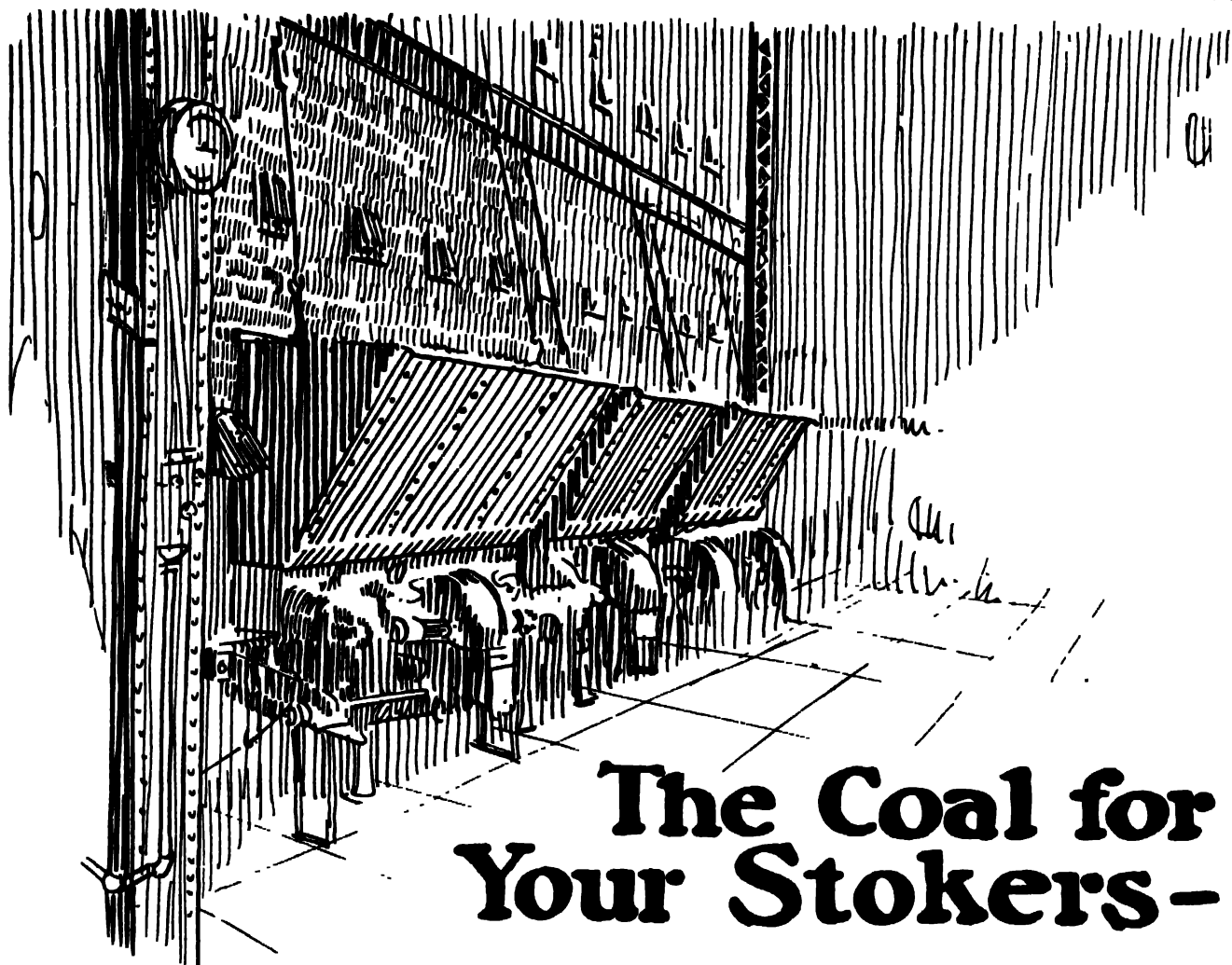
TURNERS FALLS, MASS., October 17, 1921. The mills of the Keith Paper Company, the Esleeck Paper Company and the International Paper Company were obliged to shut down this week because of the drawing of the water from the canal for the purpose of making repairs to the walls of the canal. It is reported that the mills will be closed for about four weeks. The Esleeck mill is equipped with an electric power plant which will allow operation of a part of that mill. It is estimated that about 500 men are out of employment.

### Bastrop Pulp Co. to Start Nov. 15

MONROE, La., Oct. 17, 1921.—Announcement is made that the Bastrop Pulp & Paper Co. will complete its plant during the early part of November and will begin operations Nov. 15. The company has been building a plant that has cost over \$1,000,000 at Bastrop, and when completed it will employ 300 or 400 men and have contracted for second-growth short leaf pine from 200,000 acres of land within 25 miles of Bastrop.

### To Form R. G. Olsen Paper Co.

READING, Pa., October 17, 1921.—Application for a charter for the R. G. Olson Paper Co. will be made to Gov. Sproul on Friday, October 21, by R. G. Olsen, Harry J. Kaufmann and Charles F. Busch of Wyomissing. The jobbing of fine papers will be the specialty of the new firm, whose business will be located in this city.



## The Coal for Your Stokers—

OUR Coals, prepared over the latest type picking tables, are equal to the best for steam producing purposes. This fact is attested by the many customers we sell from year to year. If you have not decided upon the source of your coal supply for the ensuing year, give us the opportunity of serving you with Empire bituminous coal.

We co-operate with the trade and give the highest degree of personal satisfaction covering quality, price and service.

*"ASK THE MAN WHO BURNS IT"*

# EMPIRE

## BITUMINOUS STEAM COAL

---

**EMPIRE COAL MINING COMPANY****ESTABLISHED 1895**

*Miners and Shippers*  
**ALBANY**

**NEW YORK**

**416 Stephen Girard Building, Philadelphia, Pa.**  
**CLEARFIELD, PA.**

**BOSTON**

---

# Editorial

Vol. LXXIII New York, October 20, 1921 No. 16  
FIFTIETH YEAR

## Will Not Interfere With Conference

The threat of a railroad strike will not in any way affect the plans for the fall business conference of the American Paper and Pulp Association which has practically completed its plans for the conference November 1 to 4 at Chicago.

The Association will proceed with its plans exactly as though no strike were contemplated.

The Association, however, will endeavor to secure better knowledge of the conditions by inviting some prominent railroad official to address the convention at the luncheon on November 3. This follows out the action of the Association at its annual meeting in April when a resolution was adopted declaring that the railroad problem and its relations to its employees were more than a matter of employer and employee, but because of the importance of transportation to all American industry, were a matter of importance to the whole American business fabric.

## Paper Makers Not Panic Stricken

Considerable discussion has been taking place in the Canadian papers regarding an article in an American financial daily to the effect that the low price for paper is due in large part of the panic stricken attitude taken by the Canadian producers, many of whom are selling at a loss, and also to the fact that German and Swedish news print is available on American docks at below \$60 per ton. It is further stated that "there is about one-third less news print being consumed than at the peak."

In replying to this article, it is stated that in the opinion of those who know, the Canadian producers have met the situation surprisingly well. In all lines of production there has been more or less unprecedented liquidation of values, and in some cases the deflation "has been accompanied by every appearance of panic," but that cannot be said of news print in which the decline has taken a well ordered course and one that at times was so deliberate as to afford disappointment to those who were anxious to see the ultimate deflation precipitated in order that the reestablishment of the industry on a new and sounder basis might be the more quickly effected. The other two reasons given in this attack on the Canadian producers are sufficient to show why news print prices are lower. Consumption is reduced, while production is increased. The appearance of foreign news print on the market is a symptom of passing conditions. No one supposes that enough very low priced European news print to control the American market will cross the Atlantic, although it may add difficulty to the situation by increasing the supply at this time.

The paper in question goes on to point out that reduced cost of production is likely to be the basis for lower prices for news print in the future and along this line Canada's news print industry

has little to fear. In this connection the authority quoted says

"According to an authority on news print, lower prices in 1922 would not be surprising. This does not mean that manufacturers are making much money on present prices, but rather that there is to be expected further deflation in labor costs and in the cost of spruce, which is the largest single item in manufacturing costs of the lower grades of paper. Cheaper spruce in 1922 will effect final costs materially and in 1923 spruce cut today which is about 30 per cent to 40 per cent cheaper than two years ago, is practically certain to make for considerably lower news print."

It is further claimed that owing to more accessible limits and other factors, production costs of Canadian companies are figured to be approximately \$5 a ton less than their American competitors, should American manufacturers be able to sell news print below present prices, and clear a profit, Canadian companies would have \$5 a ton advantage, plus American exchange. As to over-production, that is being taken care of. Few mills in Canada or the United States have been operating above 75 per cent of their capacity for any continuous time this year, also, owing to the large stocks of pulpwood, cutting this winter will be much curtailed, which should result in the position of the pulp market being greatly improved by next spring. Furthermore, it is pointed out that with news print around \$80 a ton, many newspapers and other publications which had either to cease publishing or largely curtail their output last year owing to the higher prices and the difficulties of getting a regular supply of paper, should be starting up again.

In a bulletin evidently inspired by the same article the Canadian Pulp and Paper Association says that "evidences of betterment in the pulp and paper industry continue to multiply. American newspapers, the largest consumers of news print in the world, are daily increasing their use of paper from the low level of the past few months. A decided expansion in daily newspaper advertising, much of which is, of course, merely seasonal, is apparent and is likely to continue at any rate until the close of the year. The 40 page daily and the 120-page Sunday paper, which disappeared altogether early in the summer, are again in use. Newspaper circulation, dormant for months, has started to grow."

"One New York daily reports an increase of 100,000 over last year. The Chicago *Daily Tribune* and its auxiliary publications are reported to be using 30 tons more news print daily than is being produced in their Canadian mills, which normally exceeds their requirements. The *United States Service*, a business men's weekly barometer, sent out from Washington, after months of bearish advice on the paper situation, is now advising its clients to purchase and hoard paper against lessened supply and higher prices which it foresees in the near future. The prices of pulp of all grades and of other paper making materials is stiffening. Mills idle for some time are coming back into operation."

"While these developments still leave the industry some distance from the peak of activity it enjoyed a year ago they are looked upon as indicating a much more stable condition of trade in the near future and will no doubt if they continue have a bearing when it comes to deciding upon next year's price which may not be much before the end of November."

"In regard to European paper and its effect on the American market, neither American nor Canadian producers look upon it as a really serious factor. They recall that normally this continent is not a natural market for European paper and that even as recently as a year ago, such imports were negligible. They assert that in the paper business conditions are subject to reversal almost over night and say that it would not be surprising to see European paper disappear from the American market with the same suddenness with which it made its appearance a few months ago. A revival of paper consumption in Europe, which many believe to be imminent, would, they say, go a long way towards bringing it about."

### Paper Mill Employment

The Bureau of Labor Statistics, Department of Labor has compiled figures showing the employment and wages paid in 56 paper mills during the months of September, 1920, and September, 1921. In September, 1920, the report shows that 33,439 persons were employed in these mills as compared with 22,867 employed in the same month of this year. This was a decrease of 31.6 percent. The wages paid in these mills showed a 46.2 percent decrease from \$1,000,554 paid in September, 1920, as compared with \$538,679 paid in the same month of this year.

The Bureau's report also gives a comparison between the employment and wages paid in August and September of this year. In August 56 paper mills employed 20,251 persons, increasing to 20,665 in September, an increase of 2 percent. The wages paid showed a slight decrease, however, from \$500,448 in August to \$489,193 in September, a decrease of 2.2 percent.

In regard to changes in wage rates and per capita earnings in the paper industry the Bureau says: "The entire force of one plant had wage rate reductions of 20 per cent. Decreases ranging from 10 to 25 per cent were made to the shop employees or 81 per cent of the entire force, in one mill. A decrease of approximately 16 per cent, affecting 97 per cent of the entire force, was reported by one concern. In three mills a decrease of 10 per cent was reported, affecting all employees in two mills and 96 per cent of the employees in the third mill. Part time employment was reported for this industry and the per capita earnings show a decrease of 4.2 per cent."

### How Russia Affects Paper Market

The Canadian Pulp and Paper Association, which has been investigating paper conditions in Russia, has issued the following announcement on the subject to its members:

"A big factor in the world's paper market conditions for many months past has been the abstention of Russia as a paper consumer. In normal times Russia imported large quantities of pulp and paper from Finland, Sweden, Norway and Germany. Her inability or unwillingness since the revolution to buy from these countries has been responsible in a large measure for their turning to the trans-Atlantic market, where they compete with Canadian and American producers.

"At the present time the Soviet Government of Russia is making extensive purchases of Finnish, Scandinavian and German paper. According to a report made by U. S. Consul Leslie A. Davis, of

Helsingfors, Finland, and published in the current issue of the Washington Commerce Reports, Russian purchases of Finnish paper and other commodities have amounted to 40,000,000 Finnish marks (normally about \$7,000,000 in U. S. dollars). Russia, according to the report, is practically out of paper. Russian paper mills have ceased to operate. The Government has seized all stocks of paper, leaving but a limited quantity in the free market.

"Private individuals get no paper at all. Theatres, opera houses and other places of amusement use old forms for tickets. Newspapers vary their circulation according to the paper supplies allotted to them, sometimes issuing small and sometimes larger editions.

"Books for propaganda purposes are given the preference, and when their requirements are satisfied no paper remains for educational works. In Petrograd five daily newspapers maintain an existence in spite of the paper famine. In Moscow there are also five. All are government owned, there being no private newspapers in existence.

"Next to Finland, Germany seems to be forcing the Russian paper market. Large lots of German rotation and moothpiece paper and different sorts of sheet paper were stored in the customs houses at Moscow," reports the delegate of the Finnish Paper Mill Association who recently returned from Russia and who is quoted by the American Consul. "Writing paper with German watermark could be seen everywhere in the government offices. The German business men made satisfactory deliveries and the prices were very favorable. The Soviet representative has been staying in Berlin, where he made large purchases."

"Ordinarily, Russia is capable of absorbing practically the entire export output of Finnish and German paper and the fact that Russian importations of paper from those countries are now resumed, with the probability of being progressively increased, indicates that there will be less Finnish and German paper for American buyers as time goes on."

### A. G. Howland Finds Conditions Better

[FROM OUR NEWCASTLE CORRESPONDENT]

WATERTOWN, N. Y., October 17, 1921. A. G. Howland of Hall, Ward & Walker, owners of the Hall Process of grinding pulp, has just returned from a 3,000-mile trip through the middle west and Canada where he visited many paper mills. He reports that he found conditions in the industry greatly improved with an optimistic tone everywhere. He found mills being operated six days a week which a few months ago were on part time or entirely idle.

"In the eleven days I was on the trip I did not hear any word of hard times and every mill I visited was operating full time," he said. "I encountered men who spoke of dull times in the past but none said that business was dull at this time. There were no indications of hard times either. One does not have to fight for reservations on the Pullman cars nor accommodations in hotels, but in Montreal I was unable to get accommodations in four of the largest hotels."

The trip taken by Mr. Howland took him as far west as International Falls, Minn., and Fort Frances, Ont., mill towns located on opposite sides of the international border line. He also went as far north as Grand Mead, Quebec, where he visited the plant of the Laurentide Paper Company and saw the company's two large machines in operation. One of them was running 1,011 feet a second and the other 960 feet a second.

Mr. Howland returned with a high degree of enthusiasm for the prospects of an early return of normal conditions in the paper industry.

The Cherry River Paper Company, whose plant at Richwood, W. Va., has been closed for several months because of labor troubles, is again in operation, reports received being to the effect that the employees returned on the management's terms.

# THE ANALYSIS OF CARDBOARD: ELASTICITY\*

By RAYMOND ISNARD

(See also PAPER TRADE JOURNAL, September 22, 1921.)

Of the various properties of cardboard, rigidity (or flexibility, as the case may be) certainly comes next in importance after bulk. In this case, again, cardboard is used for so many purposes and the objects made from it are themselves put to such a diversity of uses, that it is absolutely impossible to say beforehand what degree of rigidity or flexibility is required. We do not hesitate to state that experience alone can show what grade should be used. But after this has once been established and the quality clearly defined by means of an accurate analysis, the manufacturer will have but to compare the analysis of his product with that of the sample submitted to ascertain whether or not his board will satisfy the customer. And in the same way the buyer can apply the same analysis to the samples which are submitted to determine which of them meets his requirements, and he can thus spare himself many disagreeable surprises. Finally, in case of dispute, the referee will have definite figures to go by.

What is meant by the rigidity or flexibility of cardboard? It is nothing more nor less than what, in other branches of science, is known as "transverse strength." The application of a system of outside forces to a sheet of cardboard results in a deformation of the sheet and brings into play molecular forces which tend to bring the sheet back to its original condition. If the outside forces are large, the fibers will glide over one another, and when the forces cease to act the fibers will necessarily remain in their final positions, the deformation is "permanent," and there is a fold in the board. But if the forces are small, the cohesion of the fibrous elements, due to the felting, the sizing, and the calendering, will resist this sliding of the fibers over one another, the deformation will be merely "temporary," and, owing to its elasticity, the sheet will regain its original shape as soon as the forces cease to act.

If we support a test strip of cardboard of length  $l$  on the two points A and B (Fig 1), and apply a load  $P$  acting vertically at M the middle point of the strip, the deflection  $f$  will be given by

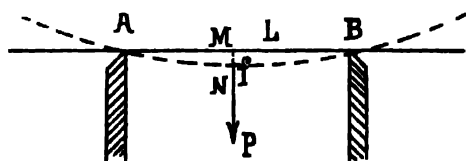


Fig 1

$$f = \frac{Pl^3}{48EI} \quad (1)$$

This is one of the formulae used in testing the strength of materials, and it need not be proved here.

The problem thus resolves itself into the same thing as a strength test. But instead of having to determine the dimensions required of a beam to carry a given load, we shall have to determine  $E$ , the coefficient of elasticity, from the known values of  $P$ ,  $l$ ,  $I$ , and  $f$ .

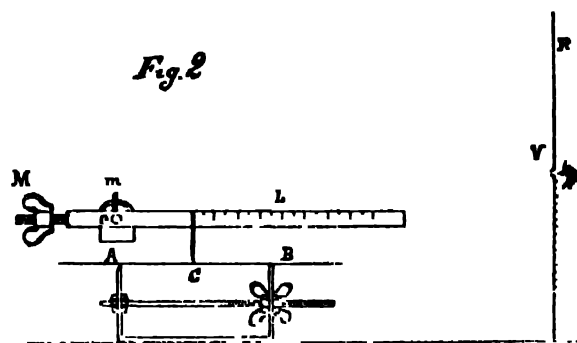
We shall outline the method which we have used in carrying out a large number of these determinations, and shall give a few of the results we have obtained for the benefit of those who may be interested in this matter.

## Apparatus

The apparatus which we used for measuring the deflection, which we shall call a "Deflectometer" since it should be given a name, consisted essentially of:

Two supporting knife-edges, A and B, the distance between which can be regulated by means of a micrometer screw (Fig 2);

A pressure lever L, pivoted at O, which carried a blade C parallel to A and B and by means of which pressure can be exerted on the test strip, and an adjustable counterpoise M,



Some suitable optical system for reading the deflection, consisting of a small mirror  $m$  fixed to  $L$ , and observation hole  $V$ , and a scale  $R$  graduated in millimeters.

Of course it is understood that is merely an example, and that any of the fundamental principles of the testing of the strength of materials can be used if need be. For instance, with very flexible or exceptionally thin cardboards we had to make use of the principle of the cantilever subjected to a uniformly distributed load which, in that particular case, was its own weight.

## Operation

When the apparatus has been balanced and adjusted, the distance between the knife edges A and B is adjusted to exactly 50 mm, and a test piece of the cardboard exactly 10 cm long and 1 cm wide is placed on them so that it projects 25 mm at either end. The projecting ends thus exactly balance the weight of the portion between A and B. The blade C is placed on the strip on which it is allowed to rest very lightly. The scale  $R$  is then adjusted so that on looking through  $V$  the zero line coincides with a fine line drawn through the center of the mirror.

## Calculation of $E$

If now we place a weight  $p$  on the lever, it will cause a deflection which must necessarily be very small, but which we have purposely exaggerated in Fig 3. The blade C moves down through a height  $MN$  which is equal to the deflection  $f$  and which corresponds to the angle of rotation  $oc$  of the lever. As this angle is very small, it is practically equal to its tangent. The angle of deflection of the mirror and of its normal are equal, while that of the reflected ray observed through  $V$  is twice as great. The displacement  $MN$ , which we wish to measure, is thus doubled by the rotation of the mirror and at the same time amplified by the distance of the scale from the mirror.

If  $d$  and  $D$  are the respective distances of the point  $M$  and of

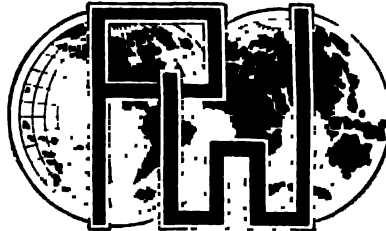
(Continued on page 42)

\*Translated from *La Papeterie* 43, 578, July 10, 1921, by A. Papineau-Couture.

## "Parswhit Perfect Papers Universally Used"

### *Offices*

*London, England  
Buenos Aires, Argentina  
Johannesburg, South Africa  
Cape Town, South Africa  
Havana, Cuba  
Santiago, Chile*



### *Offices*

*Bombay, India  
Sydney, Australia  
Melbourne, Australia  
Rio de Janeiro, Brazil  
Shanghai, China  
San Francisco, Cal.*

## KEEPING A CUSTOMER.

is half the art of selling and more important than advertising. It is with this in mind that we are at present doing all we can towards holding our foreign customers, so that when normal times come again AMERICAN MADE PAPERS will hold their position in the export fields—and such efforts cannot prove effective without the co-operation of the paper mills. Every customer we hold is held for YOU—so help us hold him.

---

## PARSONS & WHITTEMORE

Incorporated

299 Broadway

New York

# THE ANALYSIS OF CARDBOARD: ELASTICITY

(Continued from page 40)

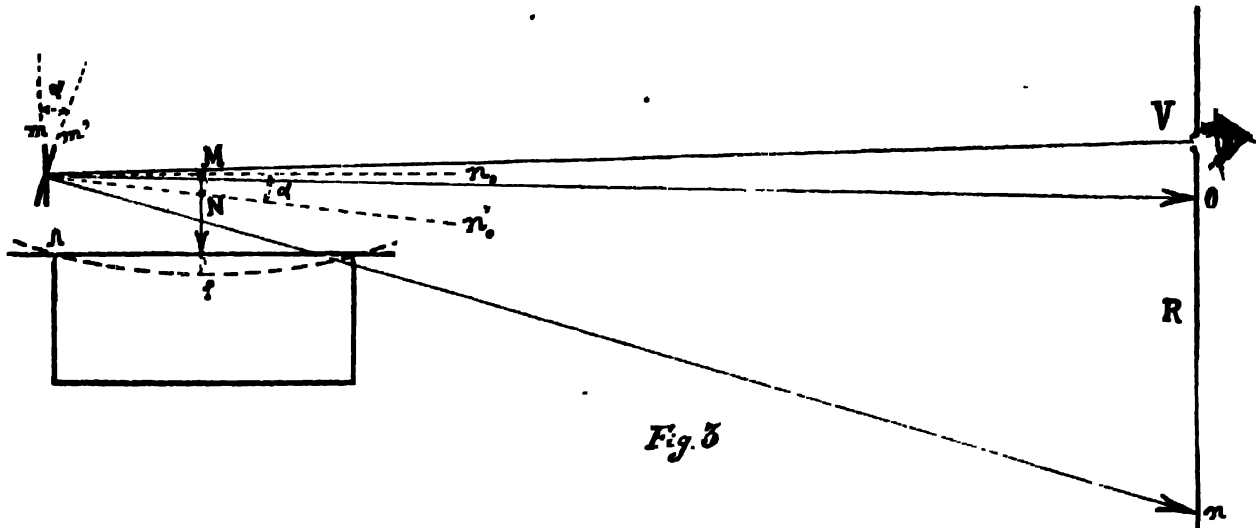


Fig. 5

the scale R from the mirror m, and if n is the observed reading (expressed in mm), we have

$$\frac{2MN}{ON} = \frac{d}{nd}$$

or  $f = \frac{2MN}{ON} \cdot \frac{nd}{d} \quad (2)$

It is easily seen that as the ratio  $D/d$  is increased the amplification of  $f$  soon becomes very large, and the slightest deflection gives an appreciable scale reading. We have thus been able to read quite easily to 0.01 mm, and with a telescope we could

easily have increased  $D$ , and consequently  $\frac{n}{f}$ . But we must not

exaggerate, and however tempting such figures may be, they do not mean anything if we exceed a certain limit, as we shall see further on.

## Calculation of I

The moment of inertia of a rectangle having a base  $b$  and a height  $h$ , with respect to an axis parallel to the base is given by

$$I = \frac{bh^3}{12}$$

The test strip has a rectangular cross section, in which the base  $b$  is equal to 10 mm while the height  $h$  is equal to the thickness  $e$  (expressed in mm), so that we have

$$I = \frac{10e^3}{12} \quad (3)$$

and substituting in (1) the values found in (2) and (3) we get

$$\frac{2ND}{ON} = \frac{P \cdot 50}{48L} \cdot \frac{10e^3}{12}$$

which reduces to

$$F = \frac{50 P D}{6250 P D} = \frac{20 dne^3}{6250 P D}$$

or

$$F = \frac{20 dne^3}{6250 P D}$$

## Variations of P

A continuous variation in the value of  $P$  could be obtained by adding water drop by drop to a balance pan, but in practice it is advisable to arrange things so that  $P$  may be reduced at will, or even made equal to zero. We therefore consider it best to graduate the lever arm in millimeters, taking the point  $M$  as the zero point, and to use a set of four small weights  $p$  of say 0.5, 1, 2.5, and 5 grams, respectively. The following table gives the value of  $P$  for different values and positions of  $p$ .

$p$	0.5 g	1.0 g	2.5 g	5.0 g
0 mm	0.5	1.0	2.5	5.0
10	0.6	1.1	3.0	6.0
20	0.7	1.2	3.5	7.0
30	0.8	1.3	4.0	8.0
40	0.9	1.4	4.5	9.0
50	1.0	1.5	5.0	10.0

This range of loads has been found quite sufficient for the average run of tests.

## Results

If the load  $P$  be plotted as ordinate against the corresponding deflection  $f$  as abscissa, we will obtain the "deflection curve" shown in Fig. 4. This curve starts at the origin and for some distance is practically a straight line, showing that the deflection is proportional to the load. But it gradually inclines and tends to become asymptotic to a line parallel to the axis. We have said "tends" for as soon as the load  $P$  becomes sufficiently great to make the curve bend, we reach a point where not only is there a permanent deformation but also new forces come into play caused by the reaction of the supporting knife edges which tend to keep the cardboard bent between them. This part of the curve is therefore of no interest to us.

The straight line portion of the graph, which may be corrected if it presents any irregularities due to inaccuracies in the readings, gives us valuable information. We need only find from it the deflection  $f$  corresponding to any given value of  $P$ , and a very simple calculation will give the value of  $E$ .

In practice it is preferable to choose  $P$  so that  $f$  will not be any greater than the thickness of the board. This rule suffers but very few exceptions.

By this method we have obtained the following coefficients of elasticity (or rigidity) which have been taken at random from among a large number of tests.

(Continued on page 44)

# NORWOOD

Mechanical Filtration Plants

*Gravity and  
Pressure Types*

All Sizes to Suit Location and Conditions

**GUARANTEED**  
TO DELIVER CLEAN WATER.

*Write for Information.*

**NORWOOD ENGINEERING CO.**  
Florence, Mass., U. S. A.

6

# LAWRENCE GROCERS' BAGS

Success comes in "cans"—  
and in bags with the Lawrence  
Brand.

Old Style Squares  
—Prompt Shipment

Improved Self-Opening  
Many Sizes  
Ready Now

**The Lawrence Bag Company**  
MIAMISBURG, OHIO



EVERYTHING IN

## PULP & PAPER

**J. F. PATTON CO., INC.**

**33 West 42<sup>nd</sup> St.**  
**New York City**

(Cable address - Pulp.N.Y.)



### Standardized Naval Stores

Hercules Naval Stores are produced  
by a process that allows accurate chemical  
control at every step.

Discriminating users of rosin, turpentine,  
and pine oil, recognize the advantages of  
materials that meet rigid specifications  
without variation.

Those users who have co-operated with  
our technical service to adapt Hercules  
or Yavon products to their manufacturing  
needs are profiting by their foresight.

Our service men may be able to assist  
other manufacturers in demonstrating  
that for many purposes Hercules Naval  
Stores are superior to all others. Let  
us know your problems.

Naval Stores Division  
**HERCULES POWDER CO.**  
Wilmington, Delaware  
Sales Office: 170 Broadway, New York City  
125 Michigan Ave., Chicago  
Chronicle Bldg., San Francisco



**HERCULES**  
**Naval Stores**  
*Produced Under Chemical Control*

# THE ANALYSIS OF CARDBOARD: ELASTICITY

(Continued from page 42)

Nature of Sample	Transverse Strength	Class
High grade roofing felt..	20 kg/mm.	Very flexible.
Second grade roofing felt..	25 kg/mm.	
Ordinary grey cardboard, loaded and calendered	49 kg/mm.	
Bicolor red cardboard for folding boxes	60 kg/mm.	Flexible.
Sheet of groundwood (for comparison)	81 kg/mm.	
Ordinary grey cardboard	105 kg/mm.	Stiff
Business cards ..	250 kg/mm.	
Visiting cards	305 kg/mm.	

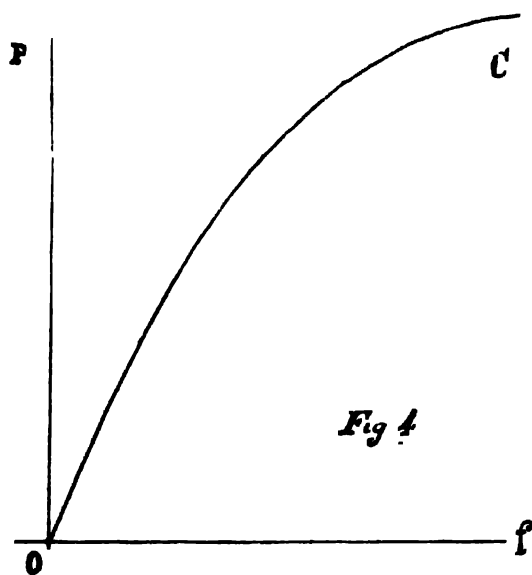
Imitation leather boards are in an entirely different class on account of the difference in their composition. They have much higher coefficients.

## Accuracy of the Measurements

Let us go back to formula (4) which may be rewritten

$$E = \frac{3125P}{e^3 f}$$

If we have a board 1 mm thick, even with a good caliper square duplicate measurements can easily vary by 0.02 mm. Hence, raising to the cube, we may have  $e^3 = 1.06$  instead of  $e^3 = 1$ . In



other words, the possible error is 6%. Under these conditions it is useless to try to obtain a greater accuracy than this in measuring  $f$ . So that for  $f = 1$  mm an accuracy to within 0.05 mm, that is, to within 5% is sufficient. If the reading corresponding to this amount (0.05 mm) is to be 1 mm, the ratio  $D/d$  must be equal to 10, so that when  $d = 50$  mm;  $D = 500$  mm.

These are the dimensions which we have adopted and which we recommend. It is about the maximum distance at which a normal eyesight can easily read the scale without a telescope when there is a strong illumination on the scale.

## Folding and Breaking

If now we push the deformation of the cardboard still further and fold it completely on itself, its behavior will vary according to its quality and this is not without importance to the user of the cardboard.

This folding test has the advantage of being easily carried out; but it is essential that it be always carried out in exactly the same manner.

A perfectly flat sheet is taken and folded over, and a given weight, say 500 grams, is placed on the fold and allowed to stand for a certain length of time, e. g., 15 minutes. The weight is then removed and the test sheet is allowed to stand

for several hours. During the first few minutes it recovers rapidly; then with decreasing speed, and finally it assumes a definite position corresponding to a clearly defined "fold angle."

Experience has shown that this angle is proportional to the flexibility of the cardboard, and if this test were carried out on all the samples listed in the above table it would class them in the same order as the coefficient of elasticity.

The "fold angle" can vary from 20° to 25° for stiff cards up to 60° for felts.

This test is very useful for those who do not possess the equipment required for more elaborate tests; but great care must be taken to see that the cardboard is absolutely flat and that it is afterwards allowed to stand long enough for it to reach the "fold angle."

Finally, a close scrutiny of the fold itself can give valuable information as to the composition of the cardboard. Very flexible boards, which should contain a large amount of rags, should have a perfectly round fold and should show no break at all on the outside face. Cardboards for non-folding boxes or for bookbinding, on the contrary, should be very stiff, and the breaking of those which contain a large amount of groundwood or of waste paper, far from being a defect, is an indication of their quality.

Of course, such a test as this requires a certain degree of skill, which is easily acquired by experience. We shall have occasion to come back later on to this subject of folding and breaking of cardboard.

## Western Paper Stock Co. Changes

SAN FRANCISCO, Cal., October 14, 1921—The Western Paper Stock Company of California has taken over the business of the Honest Weight Paper Company, of Seattle, Wash. The specialty of this concern was the packing of newspapers for export and the Seattle branches of the Western Paper Stock Company is now taking care of this department. Messrs. Reed and Hayden, formerly proprietors of the Honest Weight Paper Company will remain with the Western Paper Stock Company in an executive capacity.

The Western Paper Stock Company also has taken over and is now operating as one of its branches the warehouse formerly operated as a branch of the Independent Paper Stock Company in Spokane, Wash. Mr. Kemp, formerly branch manager of the Independent Paper Stock Company, will remain in charge.

The Sidney Waste Materials Company, Ltd., which is a subsidiary of the Western Paper Stock Company with headquarters in Victoria, B. C., also has established a branch warehouse in Vancouver, B. C.

The Western Paper Stock Co., is now operating a total of eight warehouses in all important cities of the Pacific Coast.

## Canadian Export Paper Co. Changes

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., October 17, 1921—G. F. Steele, general manager of the Canadian Export Paper Company, has been granted leave of absence on account of ill health, and it is stated here that there is a possibility that he may not return. Meanwhile a committee composed of sales managers of companies in the organization will direct the management of the company. This committee is composed of the following: E. L. Crooker, of the Laurentide Company; F. R. Thorn, of Price Brothers and R. H. Ryan, of the Brompton Company. In keeping with the policy in the various mills, a marked reduction in the staff of the Export Paper Company has been effected during the past few weeks.

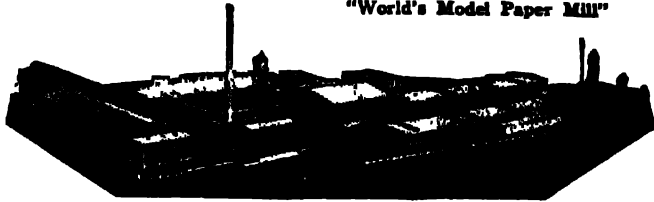
**INTERSTATE**  
**Pulp & Paper Co.**  
 (INCORPORATED)  
 1050 GRAND CENTRAL TERMINAL,  
 NEW YORK, N. Y.

**P U L P**  
 AND  
**P A P E R**

*Domestic and Export*

Newsprint    Book    Writing  
 Bond        Wrapping  
 Ledger


"World's Model Paper Mill"



Genuine Vegetable Parchment  
 Pure Waxed Papers  
 K V P Bond—White and 6 Colors

**KVP Manifold-Sub. 8 and 10**

*Write for Samples*



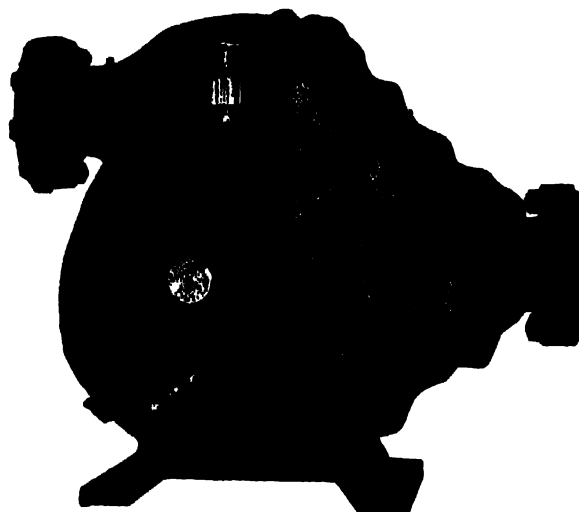
"World's Model Paper Mill"    Kalamazoo Vegetable Parchment Co.  
 Kalamazoo Michigan, U. S. A.

## THE HYTOR VACUUM PUMP FOR FLAT BOX SERVICE

Vacuum  
 Produced  
 Absolutely  
 Without  
 Pulsation

—  
 No Vibration

—  
 Saves Wires



Only One  
 Moving Part

—  
 No Rods, Pistons,  
 Crank Shafts,  
 Loose Moving Parts,  
 and No Gears

—  
 No Expert Attendance

Western Representative  
**T. H. SAVERY, Jr.**  
 1718 Republic Bldg.,  
 Chicago, Ill.

**THE NASH ENGINEERING CO.**  
 WILSON POINT ROAD  
 SOUTH NORWALK, CONN.

New England  
 Representative  
**G. H. GLEASON**  
 141 Milk St.  
 Boston, Mass.

# RECENT LITERATURE ON SODA AND SULPHATE PULPS

A READING LIST COMPILED BY CLARENCE J. WEST, NATIONAL RESEARCH COUNCIL

(Technical Association of the Pulp and Paper Industry; Committee on Bibliography, Contribution No. 35)

This list of references on the soda and sulphate pulps is a continuation of the list compiled by Clinton K. Textor, which appeared as contribution No. 34 of the Committee on Bibliography, in THE PAPER TRADE JOURNAL for July 28, 1921, and following issues.

## Aktiebolag Cellulosa (Stockholm).

Method for the preparation of cellulose by cooking cellulose-containing material with sulphur-free soda liquor.

German patent 317,907. Papierfabr 18, no 3, 43-44 (1920)

Sodium sulphide may be replaced by a catalyzer, such as mercury. In order to avoid the harmful effects of the excess of soda upon the fibers, it may be added portionwise during the cooking process.

## Aktiebolag Cellulosa.

Method for the preparation of rosin from wood rich in rosin. German patent 315,731. May 20, 1916

The wood is cooked under pressure with a concentration of alkali sufficient to dissolve the wood substance. In the presence of salt, the resins and fatty acid completely precipitate as well as a part of the lignin. The properties of this precipitate are such that it may be used as a sizing for paper or as an adhesive. The raw material contained 20 per cent resin and 5 per cent turpentine.

## Andrews, D. O.

Washing and draining sulphate pulp

Year Book, Am. Pulp Paper Manufg Supt Assn., 1920, 99, 101

## Arnold, Emil.

Paper pulp from alfa (esparto).

French patent 505,001 Papier-Ztg 45, no 79, 2841 (1920).

The material is chopped up and beaten for some time and then washed with water, to remove chlorophyll. It is then cooked with 8-10 per cent alkali, giving 55 per cent yield, as compared with 38 per cent yield by the old methods.

## Ayerst, A. B., and Waite, C. N.

Recovering alkali from wood pulp black liquor.

U. S. patent 1,166,509 Jan. 4, 1916.

The liquor is evaporated, mixed with granular charcoal, the mixture calcined while it is agitated to keep the constituents commingled, and the calcined product is leached to remove the alkali. The residual charcoal is dried and used for treating another portion of the liquor.

## Baudisch, Jos.

Soda pulp.

Zentralbl oesterr-ungar Papierind 35, no 11, 200 (1917)

Soda pulp has a lower specific gravity and greater strength than sulphite pulp.

## Beadle, C., and Stevens, H. P.

Comparison of papers produced from different kinds of deciduous and coniferous woods by the soda and sulphate processes.

Paper Maker 47, no 3, 397-403 (Mar., 1914), C. A. 8, 2619.

Tabulation of ash content, fiber length and strength characteristics of paper pulps prepared by Surface

## Beadle, C., and Stevens, H. P.

Technology of the paper industry: the influence of soda consumption in boiling upon the yield of pulp produced

J. Soc. Chem Ind. 32, 174-179 (1913); Sci. Am. Suppl. 76, 214-5 (Oct. 4, 1913); C. A. 7, 2306

The work on *Hedychium coronarium* confirms the earlier conclusion of Sutermeister on spruce that after a certain critical

point is reached further soda consumption causes the solution of cellulose. In the case of *Hedychium* the critical soda consumption is 5 per cent

## Bergius, F., and Hägglund, Erik.

Method for working up the waste liquors from the alkaline digestion of plant materials.

German patent 311,933 Papierfabr. 17 no. 32, 824-5 (1919); Papier-Ztg. 44, no 47, 1393-4 (1919).

The waste liquor is heated at 250-300 degrees for two hours; carbon dioxide is evolved and at pressures up to 50 atmospheres the organic material precipitates as a carbon-like product.

## Bergman, G. K.

Rapid method of control analysis of the liquor in the manufacture of sulphate cellulose.

Pulp Paper Mag Can 19, 11-12 (1921), C. A. 15, 1213.

Methods of analysis are given for sodium hydroxide, sodium carbonate and sodium sulphide

## Bergstrom, Hilding.

Yield of methyl alcohol upon cooking soda pulp from different woods.

Papierfabr 11, 427 (1913).

The yield varies from 0.67 to 0.83 per cent

## Brahmer, H.

Heat conditions during the digestion of sulphate cellulose

Svensk Pappers-Tidning 23, 269 (1920), C. A. 15, 170

Diagrams show the distribution of the heat in the Sandberg-Sundblad heat systems.

## Brown, W. R.

Kraft paper and its uses

American Forestry 22, 150-152 (Mar., 1916).

## Budde, —.

By-products in the manufacture of pulp from esparto grass.

World's Paper Trade Rev 65, no 13, 509-512 (1916); J. Soc. Chem Ind 35, 401-404 (1916)

## Cellulophile.

Theory of the preparation and recovery of soda liquors.

Papeterie 42, 107-112, 151-156, 208-211 (1920); C. A. 14, 1744.

A description of the methods commercially employed for the preparation and recovery of soda and sulphate liquors and of the chemical reactions involved.

## Clapp, A. L.

Counter board

U. S. patent 1,352,541 Mar. 2, 1920 C. A. 14, 1219.

This board is made of kraft pulp.

## Colsman, Wilhelm.

Utilization of the waste liquor of the straw pulp mill.

German patent 316,147 Aug 6, 1916 Papier-Ztg. 45, no. 35, 1214 (1920)

The product is used as a fertilizer.

## Cram, M. P.

New uses for waste soda liquors.

Paper Trade J. 60, no 19, 52 (May 13, 1915); Paper Maker 49, no 6, 678 (June, 1915).

## Daley, John E.

Mitscherlich fibers.

Paper Trade J. 70, no. 25, 56 (June 17, 1920).

## Drewsen, V.

Acetic acid from waste soda liquor.

(Continued on page 48)



**FORT HOWARD PRODUCTS**

**THREE QUALITY LINES**  
NAPKINS—TOWELS—TOILETS

Genuine Crepe Napkins Flat and Folded Toilet Papers—All Grades—Genuine Crepe Toilets—Our Specialty.

Paper Towels.

**Fort Howard Paper Co.**

GREEN BAY, WIS.



**Standardize**  
your requirements for Grease-proof paper on tested quality.

The well-known brands Purity and Berkshire will meet all requirements a high grade Grease-proof paper is subject to.

Many of the largest paper distributors of the country have standardized on Mountain Mill products.



Why don't you?  
*We will be glad to mail you a full line of samples.*

**Mountain Mill Paper Co.**  
LEE, MASSACHUSETTS  
Chicago Sales Office: 1148 First National Bank Building  
New York Office: 225 Fifth Avenue

**"AMERICAN"**

PAPER MAKERS TWINE      TUBE ROPE  
WALL PAPER TWINE      HAY ROPE  
FINE AND COARSE POLISHED TWINES  
"AMERICAN" BRAND MANILA ROPE  
"AMERICAN" BRAND TRANSMISSION ROPE

The name "AMERICAN" as applied to cordage means "more value in every way." Send for copy of our General Catalogue, Prices and samples.  
Address Department M.

*Largest Makers of Commercial Twines and Rope in the World*  
**AMERICAN MANUFACTURING CO.**  
NOBLE AND WEST STREETS, BROOKLYN, NEW YORK CITY

**CORDAGE**

## RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Continued from page 46)

U. S. patent 1,298,478 Mar 25, 1919 C. A. 13, 1764.

The liquor is concentrated to a gravity of about 1.30, mixed with about 10 per cent sodium hydroxide and about 50 per cent powdered lime (calcium hydroxide) to form a strong porous causticized aggregate. This is then heated to 250 degrees, cooled out of contact with air and extracted with hot water to obtain a strong crude acetate liquor of about 30 degrees Be. Carbon dioxide is passed through the liquor, the precipitated acid carbonate is separated and acetic acid is added in an amount equal to about 6 per cent of the solids present to neutralize the carbonate and the resulting solution is filtered and concentrated when sodium acetate is crystallized from it.

**Drewsen, V.**

Alcohol, acetone and other volatile substances from waste soda pulp liquor

U. S. patent 1,298,479 Mar 25, 1919 C. A. 13, 1765

"Black liquor" is concentrated until it contains about 50 per cent water, treated with sodium hydroxide equal to about 20 per cent of the organic substances present and boiled under pressure at a temperature of about 125 degrees for at least an hour to effect conversion of organic substances and is then evaporated and converted into a dry mixture after addition of lime to an amount at least equal to the organic substances present. This dry material is subjected to dry distillation with steam at a temperature of 300-500 degrees to recover acetone, methyl alcohol and other volatile products.

**Drewsen, V.**

Acetone and other products from waste soda pulp liquor.

U. S. patent 1,298,480 Mar 25, 1919 C. A. 13, 1765

A dry solid intermediate product suitable for subjection to distillation with superheated steam or dry distillation to produce acetone and other volatile compounds is prepared by concentrating waste liquor, adding 80 per cent as much lime as there are solids in the material and eliminating the water from the mixture.

**Drewsen, V.**

Sodium acetate from waste soda liquor

U. S. patent 1,298,481 Mar 25, 1919 C. A. 13, 1765.

Waste liquor from the soda process is heated under pressure and treated with carbon dioxide to remove ligneous substances, concentrated and causticized with lime to obtain a dry mixture, which is then aggregated by treatment with carbon dioxide and moisture, heated to 160-200 degrees and leached with a small amount of cold water to recover sodium acetate.

**Drewsen, V.**

Waste soda liquors

Canadian patent 201,865 July 13, 1920 C. A. 14, 2767

Same patent as U. S. patent 1,298,481

**Ebbinghaus, P.**

Birch wood papers of high quality

Wochbl. Papierfabr. 45, 2310-2311

The sulphate pulp from birch wood is readily bleachable. Formulas are given for use in featherweight, writing and print papers.

**Enderlein, G. F.**

The black liquor recovery process

Paper Industry 2, no. 1, 101-103 (Apr. 1920); Pulp Paper Mag. Can. 18, no. 29, 747-749 (July 15, 1920); Paper 26, no. 7, 356, 358, 360 (Apr. 21, 1920)

**Favier, E., Vidal, L., and Mathay, A.**

Study of the preparation and properties of the cellulose from eucalyptus and cauarin plants.

Moniteur papeterie française 49, no. 12, 272-3 (1913).

The pulp was prepared by heating with sodium hydroxide of 14 degrees Be. for 12 hours at 6 atmospheres. Eucalyptus gave 42 per cent of bleached pulp, cauarin, 20 per cent.

**Forest Products Laboratory.**

Waste of chemicals in pulping unbarked wood by the sulphate process

Pulp Paper Mag. Can. 17, 827 (1919); C. A. 13, 2763.

In pulping one ton of wood (bone dry) consisting of 96 per cent wood and 4 per cent bark, 229 pounds of sodium hydroxide and 8.5 per cent sodium sulphide are needed to reduce the bark.

**Frank, C.**

New investigation on the treatment of wood chips with alkali-spent lye and on the acids resulting by the steaming of wood.

Papierfabr. 17, no. 38, 1019-1020 (1919)

In the action of warm spent alkali lye upon pine chips, 90 per cent of the alkali present in the lye goes into the chips. One could therefore replace a quarter or even a third of the fresh liquor with spent lye.

**Fuchs, Carl S.**

Preparation of pulp in two steps

German patent 324,894 Papierfabr. 18, no. 37, 891.

Straw is cooked under ordinary or diminished pressure. The second cooking is with stronger alkali. The first liquor is treated with bisulphate or acid, upon which lignin salts precipitate.

**Griffin, M. L.**

Manufacture of soda fiber

Paper Trade J. 63, no. 13, 8c, 9a (Sept. 28, 1916)

**Griffin, M. L.**

Processes for causticizing soda liquor

Paper Trade J. 65, no. 14, 34, 36 (Oct. 4, 1917)

**Griffin, M. L.**

Report of the committee on soda pulp washing

Paper 25, 132-138 (1920); C. A. 14, 1437; Paper Maker 59, no. 4, 468 (Apr. 1920)

The washing of soda pulp in the open tank and the diffuser systems are discussed. It is proposed that the process could be simplified by hydroextractors and similar devices.

**Griffin, M. L.**

Washing unbleached soda pulp

Chem. Met. Eng. 21, 528-529 (Oct. 22, 1919)

**Halse, O. M., and Dedichen, H.**

Oil of turpentine recovered in the digestion of sulphate wood pulp

Berichte d. d. chem. Ges. 50, 623-630 (1917)

The oil from spruce or pine sulphate pulp can be purified by fractional distillation or by carefully regulated oxidation, after which it closely resembles and may be substituted for commercial turpentine. The yield of oil per ton of pulp is 1 to 1.5 kilos for spruce and up to 10 kilos for pine.

**Hartmuth, Richard.**

Method for the treatment of wood or cellulose-containing materials for the purpose of preparing cellulose and artificial resins, lakes, etc.

German patent 326,705 Papierfabr. 18, 789 (1920)

The material is digested with phenol, using a catalyst, such as hydrochloric acid.

**Hellstrom, A.**

Terpenes as by products in the manufacture of chemical pulp. Papierfabr. 12, 1025-1027 (1914); C. A. 9, 149; Papier-Ztg. 39, no. 53, 1799 (1914)

The method of refining sulphate turpentine is given.

(Continued on page 50)

Howard Bond



Howard Ledger

**"The Paper of Many Uses"***Manufactured by***THE HOWARD PAPER COMPANY,****Urbana, Ohio**

Are you finding difficulty in properly regulating the pressure on your guard-board? A Suction Couch roll will entirely eliminate not only the guard-board but the top couch roll, jacket, arms, levers, weights and all their inherent troubles as well.

**THE SANDUSKY FOUNDRY & MACHINE COMPANY**  
SANDUSKY, OHIO

11

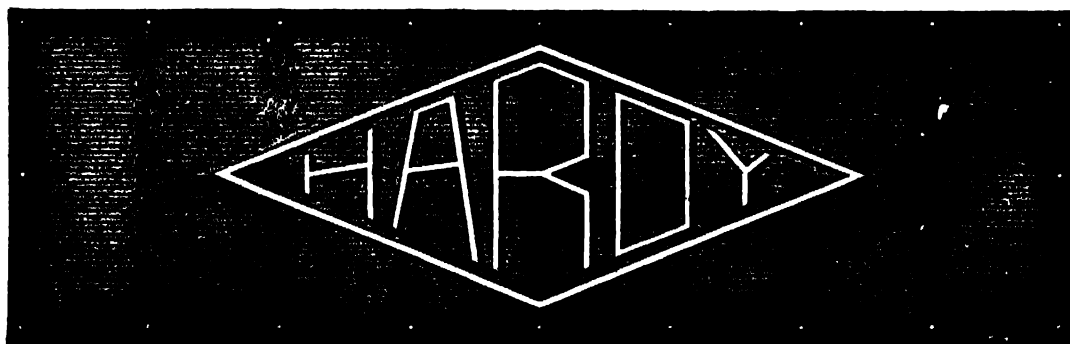
## Felt Test—Lowest Cost per Ton

If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts, for ORR felts will produce the lowest cost per ton. They "stand up" under severe usage. Orr durability is acknowledged everywhere. Their strength and long life are as dependable as their reliability and quality.

In the 32 grades of Felts and Jackets we can match your most exacting demands. Tell us the kind of paper you desire to make, and we will send you samples of felts that will economically serve you and help you to produce paper at lowest cost per ton.

**THE ORR FELT & BLANKET COMPANY, Piqua, Ohio**

**WILLIAM A. HARDY & SONS COMPANY, Fitchburg, Mass., U.S.A.**



## RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Continued from page 48)

**Herzberg, Siegfried.**

Method for the utilization of the cooking liquors from the digestion of straw

German patent 321,453. Mar. 28, 1919. Wochbl. Papierfabr. 51, no. 35, 2459 (1920).

The liquors are heated with bisulphite or some mineral acid at 70 degrees, upon which organic substances precipitate. After filtration, the liquor is electrolyzed.

**Heuser, Emil.**

Beech wood pulp.

Wochbl. Papierfabr. 44, 2209-2219 (1913).

The pulp is prepared by using an alkaline liquor containing 2.14 per cent sodium sulphide, 2.82 per cent sodium hydroxide and heating for 5 hours at 170 degrees and 7 atmospheres.

**Heuser, Emil, and Blasweiler, Th. E.**

Influence of washing upon the ash of straw pulp.

Papierfabr. 17, no. 20, 359-361 (1920).

Large amounts of hot water decrease the amount of the ash somewhat.

**Hope, B. C.**

Lime sludge recovery in soda wood pulp mills.

Pulp Paper Mag. Can. 17, 701-703 (1919); C. A. 14, 1039.

**How sulphite and sulphate got their names.**

Pulp Paper Mag. Can. 17, 804 (Sept. 18, 1919).

**Iversen, J. M., and Tracy, A. V.**

Making of kraft and sulphate of soda pulp.

Pulp Paper Mag. Can. 11, no. 10, 332-336, no. 11, 386 (May 15, June 1, 1913), Paper 11, no. 12, 22-24 (June 4, 1913)

Technical description of the processes

**Kittelsen, Trygve, and Kittelsen, Erling.**

Method for the preparation of half stuff from wood by the soda method.

German patent 324,053 Mar. 4, 1919 Wochbl. Papierfabr. 51, no. 39, 2748 Papierfabr. 19, no. 36, 669 (1920).

The wood is first treated with a clear black liquor and then with fresh liquor under pressure

**Klein, A.**

Development of sulphite and soda pulp industry

Kunststoffe 3, 101-104 (1913); Z. angew. Chem. 26, no. 83, 609 (1913); Wochbl. Papierfabr. 44, no. 24, 2198.

**Klein, A.**

New pulp processes and wood pulp as a textile raw material Papierfabr. 17, 1049-1050 (1919), C. A. 14, 837

Cellulose produced from the same pine wood by the soda, sulphate and sulphite processes shows entirely different and characteristic properties. For the purpose of relative comparison, soda pulp is likened to wool, sulphate pulp to cotton and sulphite pulp to linen. Sulphite pulp, when cooked with soda liquor, assumes a wool-like character

**Klein, A.**

Sulphate pulp and its use as a textile fiber.

Papierfabr. 17, 69-72, 89-93 (1919); C. A. 14, 345, 467.

A detailed discussion of the sulphate process for the production of kraft paper is given. Its suitability for textiles is also discussed

**Klein, A.**

Sulphate pulp and spinning paper

Kunststoffe 8, 169-171, 183-185 (1918); Zentralbl. österreich-ungar. Papierind. 36, no. 22, 473-480 (1918)

**Knösel, Th.**

Cellulose material from straw

German patent 252,411. Sept. 30, 1910.

The sulphate process is used.

**Knösel, Th.**

Recovery of sulphur from sulphate waste liquor.

Wochbl. Papierfabr. 49, no. 39, 1956-1959 (1918).

Critical of the work of Lenz.

**Kraft Paper—its speed of manufacture.**

Papier 23, 90-91 (Apr., 1920).

**Kress, Otto.**

Alkaline cooking processes.

Papier-Ztg. 44, no. 5, 104; Wochbl. Papierfabr. 50, no. 6, 310, Papierfabr. 17, no. 10, 180-181 (1919).

**Kress, Otto.**

Chemical control of the kraft process

Paper 17, no. 24, 30-32 (1916); Paper Mill 39, no. 33, 2 (Aug. 12, 1916).

A method is given for complete volumetric analysis of sulphate white liquor, and for the analysis of alkali in black liquor; rapid methods for mill control of white liquor are also given.

**Kress, Otto.**

Woods for kraft pulp.

Paper Trade J. 65, no. 14, 9, 10, 12 (Oct. 4, 1917).

**Kress, Otto, and Textor, C. K.**

Some experiments on pulping extracted yellow pine chips by the sulphate process

J. Ind. Eng. Chem. 10, 268-270 (1918), C. A. 12, 1122.

While the experiments indicate that a commercial grade of kraft pulp can be manufactured, attention is drawn to the necessity of proper screening as the fine sawdust, shives, etc., consume chemicals and also decrease the strength of the finished paper

**Lagerlof, Hans.**

The future of the sulphate and kraft pulp

Pulp Paper Mag. Can. 15, no. 4, 94-95 (Jan. 25, 1917).

**Langlet, A.**

By-products from the black liquor of soda pulp mills.

Papierfabr. 12, 211-212 (1914).

The commercial application of the Ruman process showed that considerable difficulty was encountered in the distillation of the sulphate liquor. The best yields were per ton of pulp, acetone, 30 kg, mixed alcohols, 60 kg, crude oil, 60 kg, humus, 250 kg.

**Langlet, Nils A.**

Electrolytic treatment of black liquor.

Paper 12, no. 5, 21-22 (July 16, 1913)

**Lenz, Wilhelm.**

Recovery of sulphur from the black liquor of the sulphate process

Wochbl. Papierfabr. 49, 962-963 (1918), C. A. 14, 467

The sulphur is recovered as calcium sulphide by fusion of the evaporated liquor with calcium carbonate and carbon and leaching of the melt, after precipitating the organic materials with sodium acid sulphate, whereby a cooking liquor of suitable composition is obtained, while the calcium sulphide remains for further application

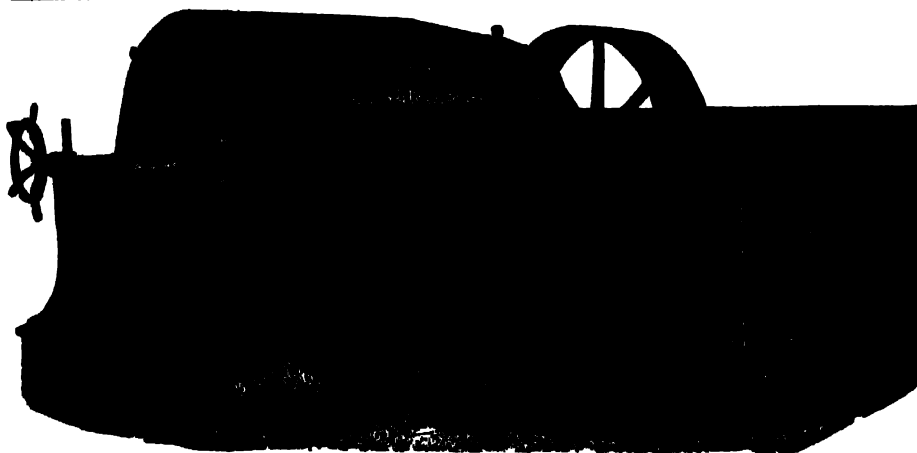
**Lofton, R. E., and Merritt, M. F.**

Test for unbleached sulphite and sulphate fibers. 4

Tech. Assoc. Papers III, no. 1, 1-7 (Dec. 1, 1920); Bureau of Standards, Technologic Paper no. 189 (Apr. 4, 1921); C. A. 15, 1213

The stain which was found to be most satisfactory in differentiating between unbleached sulphite and sulphate pulps or fibers was a mixture of 1 part of a 2 per cent aqueous solution

(Continued on page 52)



## Dilts Machine Works, Inc.

FULTON, N. Y., U. S. A.

Manufacturers of  
**BEATING ENGINES**  
**WASHING ENGINES**  
**BREAKING, BLEACHING**  
**and MIXING ENGINES**  
**Fly Bars—Bed Plates**  
**Machine Knives**

## The Lockport Felt

Use a Lockport *Cylinder Bottom* and  
*Top* combination for *Board* and watch  
 your *Felt Cost*

ASK THE MEN WHO RUN THEM  
 YOURS FOR SERVICE

**LOCKPORT FELT COMPANY**  
 NEWFANE, N. Y.

## The John W. Higman Co.

29 Broadway

New York City

## QUALITY CLAYS

FOR ALL PURPOSES  
 ENGLISH AND AMERICAN

## Perforated Metal Screens

For Pulp and Paper Mills

STEEL, COPPER, BRASS, BRONZE  
 and other Alloys

punched for Centrifugal and  
 Rotary Screens, Pulp Washers,  
 Drainer Bottoms, Filter Plates, etc.



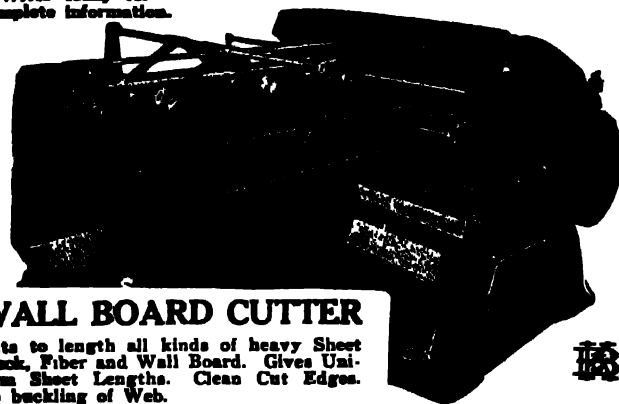
.065 Inch Round



1/4 x 1/2 Inch Slots

**CHARLES MUNDT & SONS**  
 53-65 FAIRMONT AVE. JERSEY CITY, N. J.

Write today for  
 complete information.



## WALL BOARD CUTTER

Cuts to length all kinds of heavy Sheet  
 Stock, Fiber and Wall Board. Gives Uni-  
 form Sheet Lengths. Clean Cut Edges.  
 No buckling of Web.

**M. D. KNOWLTON CO., 22 Elizabeth St., Rochester, N. Y., U. S. A.**

## EMERSON MANUFACTURING CO. LAWRENCE MASS.



See the Second-Hand Machinery ads and note the  
 ABSENCE of

## EMERSON BEATING ENGINES

They seldom wear out and are never thrown out.  
 PERFECT CIRCULATION. NO "PADDLING."

## The "EMERSON" JORDAN

does its work with half the power required by others of no  
 greater capacity.

WRITE FOR DETAILS

## RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Continued from page 50)

of malachite green and 2 parts of a 1 per cent aqueous solution of basic fuchsine or magenta. The sulphate fibers give a blue or blue-green color, and the sulphite fibers give a purple or lavender color. The color contrast not only enables one to detect the presence of one or both of these fibers but is sharp enough to enable one, after some practice, to approximately correctly estimate the percentage of each

**Lundberg, J. O.**

Boiling cellulose

German patent 284,628 June 4, 1914

An apparatus is specified for use in carrying out the process of boiling cellulose with sulphate liquors, using preheated boiling liquors

**Lundberg, J. O.**

Boiling cellulose by the sulphate or soda process.

U. S. patent 1,257,290 Feb 19, 1918 Norwegian patent 28,529 Jan. 21; 1918 C. A. 12, 995, 1598

The liquor is previously heated under pressure, the cellulose is added and the temperature raised to 100 degrees. The boiling is continued with the addition of a fresh supply of liquor which has been previously heated in a separate receiver to a temperature so elevated that no further heat need be applied

**Luttringer, A.**

Cellulose and other products from resinous waste wood  
Papierfabr. 11, 884-889 (1913)

Larch is cooked by the sulphate process and during the early stages of the digestion relief is permitted and turpentine distilled off and condensed. Volatile products, obtained on incineration of the black liquor, are condensed and recovered 1000 kg of wood gave cellulose, 315 kg, turpentine, 60 kg; pine oil, 113 kg; rosin spirit, 138 kg; light rosin oil, 87 kg; ordinary rosin oil, 60 kg; oil containing retene, 92 kg; solid retene, 24 kg; methyl alcohol and acetone, 58 kg; phenols, 15.7 kg.

**Luttringer, A.**

Obtaining turpentine and resinous products in the manufacture of paper pulp.

Mat grasses 8, 4276-4279 (1915)

The resins are extracted from the wood by steam, alkalies or resin solvents, and the residue is made up into paper pulp by boiling with sodium sulphate, turpentine being obtained as a by-product.

**McAfee, D. S.**

Recovering the alkali used in pulp digestion

U. S. patent 1,308,184 July 1, 1919 C. A. 13, 2278

Canadian patent 195,309 Dec 23, 1919 C. A. 14, 629

Soda ash cinder is treated in a closed circuit grinding system with slaked lime or unslaked lime and a liquid lime-slaking medium, the sufficiently ground product is removed, the unfinished material is returned for further treatment and the resulting solution of sodium hydroxide is separated from the residue

**Manufacture of sulphate pulp**

Papierfabr. 14, 595-599, 607-610, 619-623 (1916)

**Meade, R. K.**

New economy in the soda process for making wood pulp  
Paper Trade J 61, no. 16, 38, 40 (Oct 14, 1915)

**Moe, Carl.**

Determination of sulphide in sulphate liquor

Paper 14, no 22, 19 (1914)

A simple titrimetric test with silver nitrate is described.

**Moe, Carl.**

Manufacture of sulphate pulp

Paper 18, no 12, 11-16, no 13, 13-14; no 14, 15-16 (1916).

Reprinted under the title: "Technology of the sulphate process."

ess. Data for the use of manufacturers of sulphate pulp and kraft papers." New York, Paper, inc., 1917, 16 p. 30 cm. (Paper's Guides to pulp and paper manufacturing process. No 1)

A scheme of technical supervision of the process and of mill control is given which aims to furnish an accurate record of chemical consumption and losses and of recovery operations.

**Moe, Carl.**

Newer details of the sulphate process

Paper 20, no. 20, 24 (1917).

Complete outline is given of the various steps necessary to the technical and chemical control of the sulphate process. The methods of analysis used in mill control are described, also a scheme for the tabulation of data throughout the process.

**Moore, Hugh K.**

Chemical engineering aspect of renovating a sulphide (sulphate) mill

Met Chem Eng 17, 117-125 (1917), Trans. Am Inst. Chem. Eng 10, 177-203 (1917), Papier-Ztg. 43, 1486-1487, 1570-1571, 1599, 1622-1623 (1918).

Full description is given of the chemical engineering difficulties encountered in changing certain important details of the recovery process of a sulphate mill

**Moore, Hugh K.**

Explosion process of sulphate recovery

Chem Eng 28, 8-10, 45-47 (1920), Paper 25, no 24, 1157-1161, no 25, 1197-1201, no 26, 1241-1246 (Feb 18-Mar. 3, 1920), C. A. 14, 1438

Theoretical and practical discussion of the process.

**Moore, Hugh K.**

Recovering soda from waste liquor from the digestion of wood to obtain sulphate pulp

U. S. patent 1,137,779 May 4, 1915

The liquor is mixed with sodium sulphate and sawdust, bark, or coke, dried, and burned and the soda recovered by smelting and causticizing with lime

**Moore, Hugh K.**

Evaporating and burning waste liquor liquor obtained in the manufacture of sulphate pulp from wood

U. S. patent 1,137,780 May 4, 1915

The waste liquor is mixed with sodium sulphate, sprayed into the upper part of a retort over a hot flame which evaporates the water from the liquor. The residue collects on the sloping floor of the retort and is burned with air under pressure

**Moore, Hugh K., and Quinn, J. T.**

Reclaiming values from "black liquor" of wood pulp manufacture

U. S. patent 1,326,414 Dec 30, 1919, C. A. 14, 629.

Black liquor is mixed with salt cake, put under pressure by means of pumps and heated while under pressure in a heating coil to a high temperature. It is then allowed to discharge into a furnace under conditions so regulated that the particles of highly heated liquor burst into steam and the residue is desiccated and ignited within a short distance of the nozzle

**Moore, Hugh K.**

Recovering caustic alkali from wood pulp digester liquor

U. S. patent 1,324,920 Dec 16, 1919 C. A. 14, 467.

Concentrated lignin liquor, such as is obtained in the manufacture of wood pulp by the use of sulphate and soda, is burned and the soda thus obtained is taken up in aqueous solution, the solution filtered and causticized with lime

**Mortrud, Einar.**

Sulphate pulp cooking

Paper 17, no. 23, 15 (Feb 16, 1916).

(To be continued)



**C**UT down excessive wrapping paper investment. Why carry two wrapping paper lines for one wrapping paper purpose?

## MOSINEE

presents a perfect wrapping paper, weight and strength for each wrapping purpose. Made in all weights, from 15 lb. to 100 lbs. basis. The one complete, standardized and economical line of wrapping paper sold.

## MOSINEE KRAFT

*"The Wrapper That Delivers the Goods"*

L. H. BOGART,  
Secretary

H. BARGER,  
Treasurer

**Manufacturers' Exporters**

of

# PAPER

to the Wholesale Jobbing Trade  
Exclusively

**W. M. Pringle Co., Inc.**  
Howard and Crosby Sts., New York, N. Y.  
Cable Code—Pringle Co., New York. All Codes



Manufacturers of

**Coated Cardboard, Boxboard and Lithograph Paper, including Lithograph Blanks, Postal Card Stock, Tough Check, Railroad, Thick China, Transluents and Menu Board.**

Our Boards and Papers lie flat, hang straight, and register because they are made right.

Orders for regular or special sizes are given prompt attention. Quality guaranteed.

**TRY US AND SEE**

**EASTERN SALES OFFICE, 501 Fifth Avenue, NEW YORK CITY**

*Why not increase  
tape sales by stocking  
Liberty Tape?*

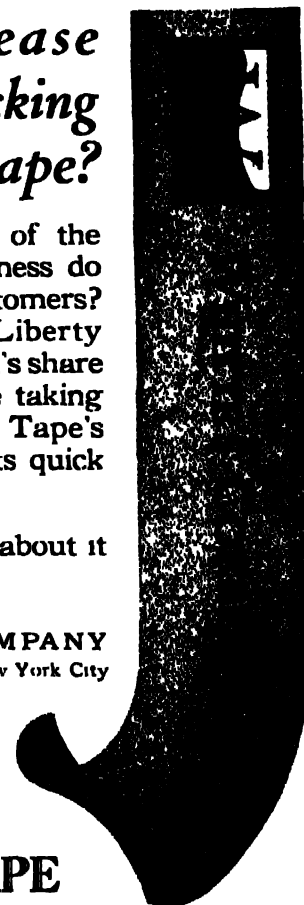
**W**HAT percentage of the binding tape business do you get from your customers? Jobbers who handle Liberty Tape are getting the lion's share of this trade. They are taking advantage of Liberty Tape's quality reputation and its quick salability.

Why not let us tell you about it further?

**LIBERTY PAPER COMPANY**  
203 Lafayette Street New York City  
Mills—Bellows Falls, Vt.

*Both Plain and Printed*

## LIBERTY TAPE



## Paper Trade Associations Not Under Suspicion

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 17, 1921—While no announcement has yet been made by either the Department of Commerce or the Department of Justice regarding so-called open price associations, it is understood that the Department of Commerce has completed an analysis of trade associations. This analysis, it is understood, has led to the conclusion that there are 28 functions of trade associations, of which number, it has been found that three or four are under direct suspicion, one being the matter of price distribution. Other trade association functions it is claimed are also capable of misuse. Officials of the Department, it is said, particularly in view of the fact that the Supreme Court of the United States now has before it for decision an open price association case, feel that the wise business man or manufacturer should avoid any action that in any way throws him into a suspicious position. There are many trade associations and the Government is not desirous, it is understood, of "mopping up" all trade associations that are in existence. Undoubtedly when the official announcement is made by the Government regarding trade associations these associations will be warned to avoid suspicious positions.

When shown the foregoing dispatch from Washington Dr. Hugh P. Baker, executive secretary of the American Pulp and Paper Association made the following statement to a representative of the PAPER TRADE JOURNAL:

"While the paper industry of course is deeply interested in the dispatches from Washington that the government has been studying closely the practices of all trade associations, there is not the slightest doubt in the world that the American Paper and Pulp Association and its affiliated organizations will be found to be exempt from any suspicion of questionable practices.

"The entire industry has been most careful to live up to not only the letter of the law, but also the spirit and the discussion of prices is entirely outside the scope of the activities of any of the affiliated associations or of the American Paper and Pulp Association itself."

## Few New Paper Machines Ordered for Next Year

Significant figures as to the future growth of the paper industry are made public by the American Paper and Pulp Association, which finds that only four new machines are scheduled for installation in the entire industry for 1922, as compared with the 53 machines being installed in 1921.

The record year of 1920, when such mills as the news print mills were producing at more than their registered capacity to meet the demands of publishers, was accompanied by the placing of contracts for much additional machinery. The year of 1921, however, with an influx of cheap foreign paper, in the absence of tariff legislation to protect manufacture in the United States, has seen contracts for little new capacity.

Figures just compiled show a total of 53 machines scheduled for this year, and only four for 1922. Of the new machines scheduled this year, eight are for news print, ten each for book and board, five for wrapping, six for writing, seven for tissue, two each for roofing felt, glassine and specialties and one for blotting. The 1922 installations are one for book and three for board. The increase for the two years over 1920 is largest in felts and building with 125 per cent, board being next with 124 per cent and book third with 11 per cent. News print shows an increased schedule of 9.2 per cent, tissue of 9, fine papers of 6.2 per cent and wrapping of 4.7 per cent.

## Chapman Paper Co. Has Salesmen's Convention

St. Louis, Mo., October 17, 1921—The sales force of the T. P. Chapman Paper Company gathered for their regular quarterly con-

vention on October 7 and recharged their energetic batteries for the last lap of the 1921 race. An unusual feature at this time was a visit to the Alton Boxboard Company at Federal, Ill., a most modern boxboard mill where, under the direction of H. C. Evans, manager, they were shown the manufacture of paper boxboard from the digesters to the big rolls at the end of the machine, giving every man a thorough knowledge of the manufacture of boxboard. On returning to St. Louis they were served with a nice luncheon, after which their regular quarterly meeting was held. Reports were received, general trade conditions were discussed, ideas exchanged and preparations made for a general clean-up of the year's business.

## Manila Men Want Higher Tariff Rates

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 11, 1921—It is understood that the manila paper manufacturers will make a determined effort in the Senate to get higher tariff rates on their product than those inserted in the bill by the House.

Representative Treadway of Massachusetts, who has just returned to Washington after the Congressional recess, states that he heard very little criticism from the paper manufacturers in his district, the only complaint being the rate on manila paper. He said that he had heard a number of suggestions regarding the changing of the phrasing in the paper schedule of the bill, but he did not foresee that this would cause much trouble.

## Peshtigo Pulp Co. Sues D. R. Mead

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., October 17, 1921—Trial of a lawsuit in which the Peshtigo Pulp and Paper Company is suing D. R. Mead, former general manager of the company for \$100,000 is in progress in circuit court in Marinette. The paper company charges that Mr. Mead mismanaged the concern and tried to wreck it in order to gain control. Mr. Mead denies the allegations and charges he made money for the company until the bottom dropped out of the market. He charges that the slump in the company's business was no fault of his. The trial has been in progress since early in the week and probably will not go to the jury for several days.

## Wants Action on Pulpwood Commission

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 19, 1921—Representative Porter of Pennsylvania, chairman of the Foreign Affairs Committee of the House who pushed the Underwood Pulpwood Resolution through the House, has just returned and states that he intends to try and see if he can get some action on the appointment of the Commission. While Mr. Porter refuses to discuss the situation for publication, he has some very definite ideas as to why the answer of the British Government regarding the appointment of the Commission has been delayed. He is hopeful that some kind of announcement regarding the Commission will be made in the very near future.

## Safety Work at Kimberly-Clark Mills

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., October 17, 1921—Although safety work is always emphasized in the mills of the Kimberly-Clark Company, special attention is paid to it during the winter months when there are fewer outside distractions. The first "safety contest" of the season started October 10, between the mills of Kimberly-Clark Company, at Niagara and Kimberly, and will continue until December 10. A daily report of accidents is made in the two mills and suitable reward will be paid to the mills and departments which make the best safety records during the three months.

---

---

**Now Out and All Advance Orders Filled**

---

---

**The New 1922 Edition**  
**of**  
**Lockwood's Directory**

---

---

**of the**  
**Paper and Allied Trades**

An encyclopedia of the Paper and Pulp Industry and Allied lines, thoroughly revised and up-to-date. Its contents include complete lists of

PAPER AND PULP MILLS, ALSO CLASSIFICATION OF THEIR PRODUCTS, MAKERS OF PAPER SPECIALTIES, GENERAL PAPER MERCHANTS, PULP, RAG AND PAPER STOCK DEALERS, CONVERTERS OF PAPER, MILL OFFICIALS AND THEIR CONNECTIONS, WATER-MARKS, BRANDS, STATISTICAL INFORMATION, TRADE ASSOCIATIONS AND AUTHENTIC LIST OF WHOLESALE AND RETAIL STATIONERS.

**Price \$7.00**

**Express Prepaid**

*Send in Your Order Now and Reap Prompt Benefit*

---

---

**Lockwood Trade Journal Co., Inc.**  
**10 East 39th St.,** **New York**

**WOOD FLOUR**

Various degrees of fineness and either fibrous or granular.  
Made from first growth Spruce and Pine, by approved processes.

**UNION WOOD FLOUR CO., INC.**  
Hudson Falls, N. Y.

**UNION TALC COMPANY**

Finest Grades of Agalite

132 Nassau Street

New York

**Salomon Bros. & Co.**

IMPORTERS OF

**All Grades of Rag and Paper Stock**

200 FIFTH AVENUE, NEW YORK

Cotton Waste : Linters : Ramie

**ENGINEERS PLANNING POWER TRANSMISSIONS**

Secure Data and Estimates of "MORSE" DRIVES

SAVE Construction, Space, Light, Fuel Producing More with Less

**MORSE CHAIN CO. - ITHACA, N. Y.**

Engineering Service, Assistance, Bulletins

Baltimore	Chicago	Kansas City	Pittsburgh	Montreal
Boston	Cleveland	New York	San Francisco	Minneapolis
Charlotte, N. C.	Detroit	Philadelphia	Atlanta	St. Louis

See our exhibit at the Seventh National Exposition of Chemical Industries  
8th Coast Artillery Armory, New York, Week of September 12th.

# **CRANE BRASS VALVES**

7

**CLAY**

Atterbury Bros., Inc.  
Sole Agents  
145 Nassau St., N. Y.

West Carlaze China  
Clay Co.,  
St. Austell, England

**AGALITE FILLER**

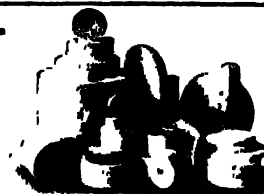
**UNITED STATES TALC CO.**

GOVERNEUR

:

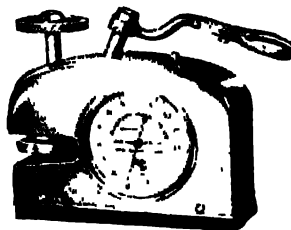
NEW YORK

Manufacturers  
of  
All Special  
Small Roll  
Products

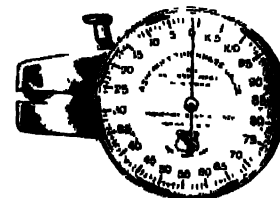


Adding  
Machine,  
Cash Register,  
Die Wiping,  
Hand Rolls,  
Etc., Etc.

PAPER MANUFACTURERS CO., Inc., Phila., Pa.



**The Ashcroft  
Paper Tester**



**The Ashcroft  
Thickness Gauge**

Actual necessities for all those who make, sell or purchase paper in any form. The thousands in daily use testify to their efficiency.

**THE ASHCROFT MFG. CO.**

119 West 40th Street New York 29 North Jefferson Street Chicago, Ill. 19 High Street Boston, Mass.  
Canadian Sales Agents: The Canadian Fairbanks Morse Co., Montreal and Toronto.

**The Successful Business Man Reads His Trade Paper**

ESTABLISHED 1842

**FOURDRINIER WIRES**

DANDY ROLLS

CYLINDER

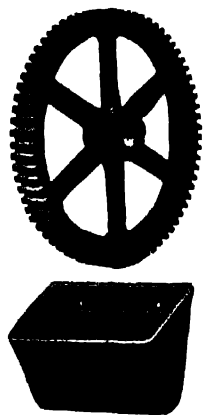
MOLDS

**CHENEY BIGELOW WIRE WORKS**  
SPRINGFIELD, MASS.

MANUFACTURERS

Paper Mill Wire Cloth, Bank  
and Office Railings and Grill Work

# CALDWELL SERVICE



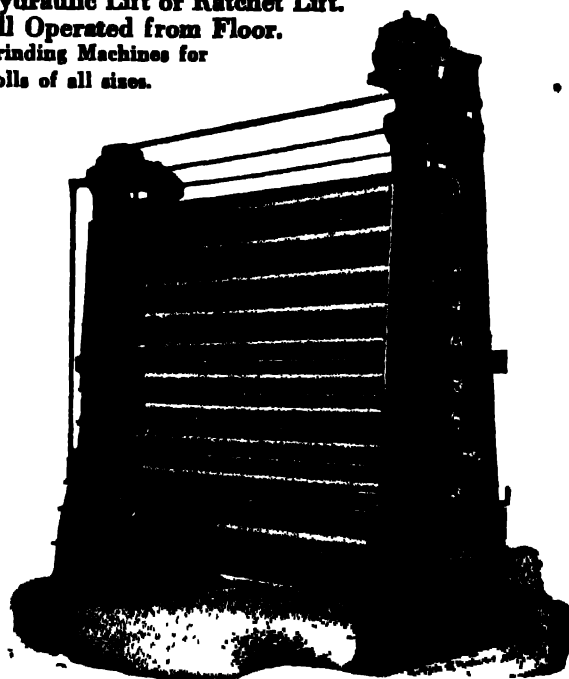
**HALF** a million dollars worth of well-selected stock, constantly maintained, and an organization keyed up to the theory that plant efficiency is measured by the number of orders shipped on the day of receipt, accounts for Caldwell service. Let us figure on your requirements.

**H. W. CALDWELL & SON CO.**  
LINK-BELT COMPANY, OWNER  
CHICAGO, 17th Street and Western Avenue  
NEW YORK, 50 Church St.



# CALENDERS

Furnished Complete, with Electric Motor Lift, Hydraulic Lift or Ratchet Lift. All Operated from Floor. Grinding Machines for Rolls of all sizes.



**LOBDELL CAR WHEEL CO.**  
Wilmington, Del., U. S. A.

# FARREL

**Roll  
Grinders**



For the sake of your product regrind your used worn rolls on a Farrel roll grinder—a heavy, sturdy instrument of precision—we have made and used them ourselves for years.

*Farrel calendars and chilled rollers known for the highest in quality.*

*We are the largest makers in the world of these products*

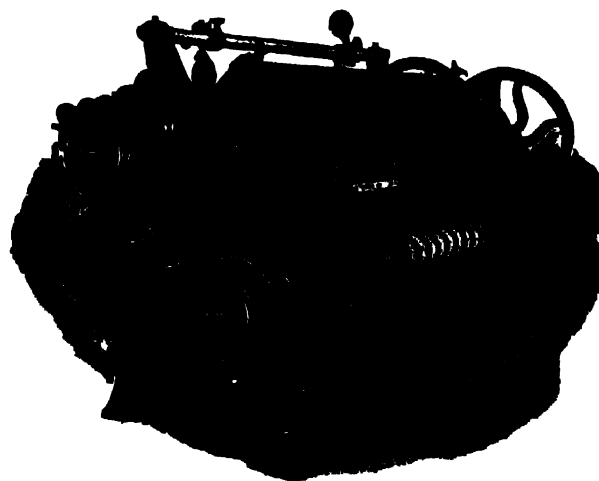
Write for Bulletin L-755

Established 1848

**Farrel Foundry & Machine Company**  
Ansonia, Conn., U. S. A.  
Branch Plant: Buffalo, N. Y.

# Paper Cutters

Single, Duplex and Diagonal



Cutter Knives

Patent Top Slitters

**HAMBLET MACHINE CO.**  
Lawrence, Mass.

## New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,  
WEDNESDAY, October 19, 1921.

An optimistic outlook prevails in the New York paper market. For the last six weeks things have been moving ahead until now prospects are bright that some of the big manufacturers will be producing at 100 per cent capacity before long. The railroad strike warnings are playing their part to stimulate buying. Paper stocks have been kept very low, and now in view of a possible tie-up, paper dealers are protecting themselves with more heavy buying. The readjustment of economic conditions is subject to a good many hard bumps. The impending strike is one of the very rough spots in the course of reconstruction. With lowered wages for railroad men will come lowered freight rates which will not be unwelcome to the paper industry. Importations for the paper industry run far behind those of 1920, leaving the field open to the domestic manufacturers who are now in a position to take advantage of the ill wind of high exchange. Exportations in paper to South America also must needs lag for some time unless an impractical interpretation be placed upon a cable received by the Argentine-American Chamber of Commerce of New York to the effect that the Argentine markets are less active than ever. Nevertheless the paper trade is looking upward in full accord with the more general trend. It will by no means fail to keep pace with the advance in the value of Liberty bonds, the extension of credit, and the gradual decrease in unemployment, which are but a few of the many indicators of improved business long awaited and soon to come.

Trading in news print for the week has shown a slight upward tendency while prices range a fraction of a cent lower than the last quotations printed. Contract rolls are the same at 4.00@4.25 cents a pound, transit rolls are lower at 4.25@4.75, and the same for sheets now at 4.75@5.00, and side runs at from 3.75@4.00.

A satisfactory demand for book paper continues to keep this market firm and active. Increased numbers of orders are expected in the near future which will go far toward putting this paper back at normal. The low limit for cased book, f o b New York grades S & S C, and M F remain the same at 6.70 and 6.50 respectively, while the high limit is down a little to 7.50 for both.

The fine paper market is on the road to improvement but traveling at a tediously slow pace. The condition of affairs abroad does not lend any assistance to this market which only needs to feel the impetus of better times to boom accordingly.

Tissue has been conspicuously firm for the past week in accord with all factors making for improvement. Prices run as last week for all grades. The manufacturers are encouraged and justly optimistic for the future, for, although most of the trading is being carried on at present by dealers, the shoe interests are contributing handily to the good feeling with increased and regular orders.

Kraft has improved in the last few days to a marked degree. The demand has turned from mediocre to good and prospects are bright that it will continue to sell well for a considerable period. Domestic No. 1 kraft, f. o. b. mills is quoted at the increased price of 6.50@7.00, although some has been sold as high as 8.00 cents a pound the last few days. Domestic No. 2 kraft also stands higher at from 5.75@6.25 cents a pound.

The board market has been rather quiet now for some days with prices stable or changing but little. However, the tendency from now on is expected to be toward increased activity in this line. News board has been the most active, and its price has continued to advance until now it stands at from 50.00@60.00 a ton.

### Mechanical Pulp

The pulp market as a whole has remained quiet for several

days, with prices nominal. Mechanical pulp is in fair demand and the tonnage in the market is reported to be rather small. Things should improve very rapidly in this department before many more weeks are up.

### Chemical Pulp

Soda pulp continues strong. The demand is close to normal at the present time and very probably will improve. No kraft pulp from foreign markets has been seen in some time with the result that the domestic mills find it necessary to run at capacity to meet the generous demand. Conditions are most assuredly improving in the chemical pulp market. Job lots of kraft pulp have been cleared away and hopes for the immediate future run high among dealers. Bleached sulphite has been a favorite during the last week. Considerable quantities of it have moved lately and there has been a good deal available quoted at rising prices.

### Old Rope and Bagging

The demand for old rope and bagging continues fair although it has lagged slightly throughout the week. The prices are in equilibrium for the present, but will move up or down according as the demand for the better grades of paper increases or decreases. Time alone can straighten out the sadly tangled business conditions, and the old rope and bagging market must needs wait on better days along with everything else.

### Rags

Roofing rags and white stock have showed the greatest improvement of any of the commodities under this head. The market is stronger and shows a little improvement. Colored stock alone has failed to improve, but a better undertone exists throughout the balance of the market much to the increase of optimism among members of the trade.

### Waste Paper

The demand for hard and soft white shavings has been good and the rest have at least not dropped back from their standing of last week. Prices remain about the same and the general attitude seems to be expectant of improvement.

### Twine

Prices for twine tend to fluctuate a good deal but the general trend is upward. Cotton twines are a little higher this week and India No. 6 basis some lower. Improvement is the rule.

### F. E. Bragg Heads Orono Paper Co.

BANGOR, Me., October 17, 1921.—Officers were elected to fill vacancies and action was taken upon the death of Hon. Charles F. Bragg, who had served as president of the corporation since 1906, at a meeting of the directors of the Orono Pulp and Paper Company recently.

Franklin E. Bragg, formerly vice-president and son of the late president, was elected president, Frederic W. Adams, vice-president, and Harry W. Libbey, a member of the board of directors.

In the resolutions upon the death of the former president appreciation of his long period of service and his wise direction during that time was expressed. Sympathy was extended to the family and the tribute was made a part of the record, a copy being sent to Mrs. Bragg.

### Strike Breakers Go to Work at Rumford

[FROM OUR REGULAR CORRESPONDENT]

RUMFORD, Me., October 17, 1921.—About 75 strike breakers arrived in town this week and went to work at the International Paper Company mill here. They take the places of men who went on strike May 1.

It is stated that other workers will be imported into the town in the near future as the plant plans resumption as was done in Livermore Falls, where more than 600 are now on the payroll.

# Market Quotations

## Paper Company Securities

New York Stock Exchange, closing quotations October 18, 1921:

Stocks	BID	ASKED.
American Writing Paper Company, pref	23	
International Paper Company, com	46 1/4	47
International Paper Company, pref, stamped	69	70
Union Bag & Paper Corporation	64	67

Because of the unusual conditions prevailing in the various markets quotations are more or less nominal.

Paper		
F o b Mill	@	30
Ledgers	12	@ 30
Bonds	9.00	@ 55.00
Writings—		
Extra Superfine	13	@ 25
Superfine	13	@ 20
Tub Sized	13	@ 16
Engine Sized	9.00	@ 15.00
News—f o b Mill—		
Rolls, contract	4.00	@ 4.25
Rolls, transit	4.25	@ 4.75
Sheets	4.75	@ 5.00
Side Runs	3.75	@ 4.00
Book, Case—f o b N Y—		
S. & S C	6.70	@ 7.50
M F	6.50	@ 7.50
Coated and Enamel	8.25	@ 11.00
Lithograph	9.00	@ 11.25
Tissues—f o b N Y—		
White, No 1	70	@ 75
Colored	1.10	@ 2.15
Anti Tarnish	1.50	@ 3.70
Manila	70	@ 80
Kraft—f o b Mill—		
No 1 Domestic	6.50	@ 7.00
No 2 Domestic	5.75	@ 6.15
Imported	6.00	@ 6.50
Sulphite Screenings	9.00	@ 3.00
Manila		
No 1 Jute	8.00	@ 9.00
No 2 Jute	7.25	@ 8.50
No 1 Wood	5.00	@ 6.00
No 2 Wood	4.50	@ 5.00
Butchers	4.90	@ 5.70
Fiber Papers—		
No 1 Fiber	6.00	@ 7.00
No 2 Fiber	5.00	@ 6.00
Common Stages	1.80	@ 2.10
Card Middle	4.00	@ 4.10
Boards—per ton—		
News	40.00	@ 41.00
Straw	5.00	@ 4.00
Clap	3.00	@ 4.00
Binders' Board	65.00	@ 55.00
Sgl Mld 1d Crap	50.00	@ 60.00
Wool Pulp	80.00	@ 90.00
Containers	5.00	@ 10.00

## Mechanical Help

F o b Pulp Mills		
No 1 Imported	30.00	@ 35.00
No 1 Domestic	30.00	@ 35.00
(1 1/2 Duct)		

## Chemical Pulp

(Ex Dock Atlantic Ports)

Sulphite (Imported)—		
Bleached	4.00	@ 4.25
Easy Bleaching	3.00	@ 3.50
No 1 Strong unbleached	3.50	@ 4.00
No 1 Kraft	3.50	@ 3.75
Sulphate—		
Bleached	3.25	@ 3.75
(F o b Pulp Mill)		
Sulphite (Domestic)—		
Bleached	4.00	@ 4.25
Strong unbleached	3.00	@ 3.25
Easy Bleaching		
Sulphite	3.00	@ 3.25
News Sulphite	2.75	@ 3.00
Mitscherlich	3.15	@ 3.75
Kraft (Domestic)	2.75	@ 3.00
Soda bleached	3.75	@ 4.00

## Domestic Rags

New		
Prices to Mill, f o b N Y		
Shirt Cuttings—		
New White, No. 1	10.00	@ 10.50
New White, No. 2	6.00	@ 6.50
Silvina, No. 1	6.50	@ 7.00
New Unbleached	8.75	@ 9.25
Washables	4.50	@ 5.00
Fancy	5.50	@ 6.00
Cottons—according to Grades—		
Blue Overall	6.00	@ 6.50

New Blue	5.25	@ 6.00
New Black Soft	3.75	@ 4.00
New Light Sec-		
onds	2.75	@ 3.00
O D Khaki Cut-		
tings	3.75	@ 4.00
Cardov	3.00	@ 3.25
New Canvas	7.00	@ 7.50
New Black Mixed	2.75	@ 3.25
Old		
White, No 1	6.00	@ 6.50
Repacked	5.00	@ 5.25
Miscellaneous		
White No 2	3.50	@ 3.75
Miscellaneous	3.00	@ 3.25
So Soid White	1.10	@ 1.60
Thurds and Blues		
Repacked	2.00	@ 2.25
Miscellaneous	1.50	@ 1.75
Black stockings	1.75	@ 2.00
Cloth Strapping	1.15	@ 1.25
No 1	1.25	@ 1.50
No 2	1.05	@ 1.10
No 3	.95	@ 1.00
No 4	.95	@ 1.00
No 5	.85	@ .90

## Foreign Rags

New Light Silicas	6.00	@ 6.25
Light Flannelites	6.25	@ 6.50
Unbleached Cotton	7.50	@ 8.00
New White Cut		
tings	9.50	@ 10.50
New Light Oxford	5.70	@ 6.00
New Light Prints	4.50	@ 5.00
New Mixed Cut		
tings	nominal	
New Dark Cuttings	2.50	@ 3.00
No 1 White Linens	8.00	@ 9.00
No 2 White Linens	6.00	@ 7.00
No 3 White Linens	5.00	@ 5.25
No 4 White Linens	3.50	@ 4.00
Old Extra Light		
Prints	2.00	@ 2.25
Old Light Prints	1.75	@ 2.00
Med Light Prints	nominal	
Dut h Blue Cotton	2.00	@ 2.15
German Blue Cut		
tings	1.25	@ 1.90
Gr Blue Linens	3.00	@ 3.50
Checks and Blues	1.50	@ 1.60
Dark Cotton	1.10	@ 1.15
Shoppers	1.00	@ 1.05
French Blues	2.00	@ 2.15

## Bagging

Prices to Mill f o b N Y		
Gunny No 1—		
Foreign	1.00	@ 1.10
Domestic	1.10	@ 1.20
Wool Furs, light	1.20	@ 1.40
Wool Furs, heavy	1.25	@ 1.40
Bright Bagging	1.20	@ 1.35
No 1 Scrap	1.00	@ 1.15
Sound Bagging	.75	@ .85
Manila Rope—		
Foreign	4.25	@ 4.65
Domestic	4.50	@ 4.75
New Bu Cut	2.25	@ 2.75
Hessian Lute Th coils		
Potom	4.25	@ 4.50
Domestic	4.00	@ 4.25
Mixed Stripes	.85	@ .95

## Twines

Cotton— (F o b Mill)		
No 1	32	@ 34
No 2	30	@ 32
No 3	26	@ 28
India, No 6 basis—		
Light	15	@ 15 1/2
Dark	15	@ 15 1/2
R. C. 18 Basis	39	@ 40
A. B. Italian, 18		
Basis	50	@ 60
Finished Jute—		
Light, 18 basis	28	@ 29
Dark, 18 basis	26	@ 28

Jute Wrapping, 2-6		
Flv—		
No. 1	25	@ 26
No. 2	23	@ 24
Tube Rope—		
5 ply and larger	17	@ 18
Line Tube Yarn—		
5-ply and larger	30	@ 32
4 ply	31	@ 31
3 ply	32	@ 34
Unfinished India—		
3 ply and larger	16	@ 17
Paper Makers Twine		
Balls	10 1/2	@ 12 1/2
Box Twine, 2 1/2 ply	14	@ 16
Lute Rope	20	@ 24
Amer Hemp, 6	32	@ 34
Sisal Hay Rope—		
No 1 Basis	19	@ 22
No 2 Basis	18	@ 20
Sisal Lath Yarn—		
No 1	18	@ 19
No 2	17	@ 19
Manila Rope	26	@ 28

## Old Waste Papers

(f o b New York)		
Shaving		
Hard White, No 1	3.25	@ 3.90

Hard White, No 2	3.25	@ 3.50
Soft White, No 1	3.20	@ 3.35

Flat Stock—		
Stitchless	1.15	@ 1.35
Over Issue Mag	1.65	@ 1.70
Solid Flat Book	1.50	@ 1.55
Unpiled No 1	1.15	@ 1.25
Solid Book Ledger	2.00	@ 2.25
Ledger Stock	1.75	@ 1.85
No 1 White News	2.00	@ 2.15
New B B Chips	.60	@ .65

Mamias—		
New Inv Cut	3.00	@ 3.15
New Cut No 1	2.15	@ 2.25
Extra No 1, Old	1.60	@ 1.70
Print	.90	@ 1.00
Container Board	.85	@ .90
Bogus Wrapper	.65	@ .75
Old Krafts, machine compressed		
Bales	2.00	@ 2.05

News—		
Strictly Overissue	.85	@ .90
Strictly Folded	.65	@ .75
No 1 Mixed Paper	.45	@ .55
Common Paper	.35	@ .40

## CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

Paper		
100 Test	70.00	@ 72.50
Binders' Board	80.00	@ 80.00
Solid Wood Pulp	80.00	@ 90.00
Straw Board	35.00	@ 40.00
Filled Pulp Board	60.00	@ 65.00
Old Papers		
Shavings—		
No 1 Hard White	3.00	@ 3.25
No 1 Soft Shav	2.25	@ 2.50
No 1 Mixed	.90	@ 1.00
No 2 Mixed	.90	@ 1.00
White Envel Cut		
ings	3.00	@ 3.25
Ledgers and Writings	1.50	@ 1.75
Solid Books	1.25	@ 1.50
No 1 Books, light	.90	@ 1.00
Blank	1.65	@ 1.75
Ex No 1 Manila	2.25	@ 2.50
Manila Envelope		
Cuttings	2.50	@ 2.75
No 1 Manilas	1.20	@ 1.30
Folders News (over issue)	.85	@ 1.00
Old Newspaper	.75	@ .85
Mixed Papers	.75	@ .85
Straw Chippings	.75	@ .85
Binders' Chippings	.75	@ .85
Kraft	2.00	@ 2.25
New Kraft Cuts	2.50	@ 2.75
Roofing Stock, f o b Chicago, Net		
Cash—		
No 1	25.00	@ —
No 2	23.00	@ —
No 3	21.00	@ —
No 4	21.00	@ —

## PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

Paper		
Best Tarred, 1 ply (per roll)	2.00	@ 2.10
Best Tarred, 2-ply (per roll)	1.50	@ 1.60
Best Tarred, 3-ply	2.00	@ 2.10
Bagging		
F o b Phila		
Gunny No 1—	2.25	@ 2.50
Foreign	1.00	@ 1.25
Domestic	4.00	@ 4.50
Manila Rope	.75	@ .80
Sisal Rope	.75	@ .80
Mixed Rope	.75	@ .80
Scrap Burlaps	1.00	@ 1.25
Wool Tares, heavy	2.50	@ 2.75
Mixed Stripes	.75	@ .80
No 1, New Lt. Burlap	.75	@ .80
New Burlap Cuttings	1.75	@ 2.10
Old Papers		
F o b Phila		
No 1, Hard White	3.50	@ 3.75
No 2, If a rd		
White	3.00	@ 3.25
No 1 Soft White	2.75	@ 3.00
No 2 Soft White	1.75	@ 2.00
No 1 Mixed	1.50	@ 1.75
No 2 Mixed	1.00	@ 1.25

(Continued on page 62)

# Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING OCTOBER 15, 1921

### SUMMARY

News Print	569 rolls
Printing Paper	61 cs, 202 rolls
Paper Hangings	16 cs, 2 cs
Wall Paper	312 bbls
Cigarette Paper	240 cs
Tissue Paper	4 cs, 1 bl
Tracing and Drawing Paper	61 cs
Filter Paper	8 cs
Surface Coated Paper	69 cs
Writing Paper	1 cs
Miscellaneous Paper	70 cs

### CIGARETTE PAPER.

P. J. Schweitzer, Silene, Marseille, 100 cs.  
American Tobacco Co., France, Havre, 70 cs.  
American Tobacco Co., Leopoldina, Havre, 54 cs.  
The Sutro Co., by same, 26 cs.

### WALL PAPER

R. F. Lang, Mongolia, Hamburg, 230 bbls.  
R. E. Thebaud, Veretina, London, 2 bbls.

### PAPER HANGINGS

W. H. S. Lloyd & Co., Maine, London, 2 cs.  
W. H. S. Lloyd & Co., by same, 6 bls.  
A. C. Dodman, Jr., Celtic, Liverpool, 10 bbls.

### NEWS PRINT.

F. C. Melby, Bergensfjord, Kristiania, 25 rolls.  
National Bank, by same, 144 rolls.  
Hudson Trading Co., Ipswich, Hamburg, 307 rolls.  
Agar Bernson Corp., by same, 19 rolls.  
Parsons & Whittemore, N. Amsterdam, Rotterdam, 74 reels.

### PRINTING PAPER

L. A. Consmitter, N. Amsterdam, 50 cs.  
Hudson Trading Co., Ipswich, Hamburg, 202 rolls.  
B. F. Drakenfeld & Co., Caronia, Liverpool, 11 cs.

### TISSUE PAPER

Meadows Wye & Co., Caronia, Liverpool, 4 cs.  
J. L. N. Smythe & Co., by same, 1 bl.

### TRACING PAPER

E. Dietzen & Co., Mongolia, Hamburg, 4 cs.  
Keuffel & Esset, Ipswich, Hamburg, 55 cs.  
H. Reeve Angel & Co., N. Amsterdam, 2 cs.

### FILTER PAPER

H. Reeve Angel & Co., N. Amsterdam, Rotterdam, 8 cs.

### SURFACE COATED PAPER

L. A. Consmitter, N. Amsterdam, Rotterdam, 69 cs.

### WRITING PAPER

Goodman & Levy, La Savon, Havre, 1 cs writing paper.

### PAPER

Bernard Indac & Co., Mongolia, Flamburg, 2 cs.  
J. L. Kraman, by same, 15 cs.  
Coenrae Morrison & Co., France, Havre, 10 cs.  
Henle Wax Paper Co., Olympia, Liverpool, 10 cs.  
Brooks Paper Co., Veretina, London, 11 cs.  
F. W. Devos & Reynold Co., Leopoldina, Havre, 16 cs.  
H. Kayser & Fils, La Savon, Havre, 6 cs.

### RAUS, BAGGINGS, ETC

B. D. Kaplan, Celtic, Liverpool, 107 bbls tags.  
Albion Trading Co., by same, 40 bbls tags.  
J. F. Walker Co., Francisco, Hull, 16 bbls tags.  
Castle, Gotthel & Overton, Francisco, Antwerp, 108 bbls bagging.  
M. Dalton, Alpine Range, Dundee, 21 bbls paper stock.  
American Woodpulp Corp., Ipswich, Hamburg, 81 bbls tags.  
American Woodpulp Corp., by same, 9 bbls new cuttings.  
R. F. Downing & Co., N. Amsterdam, Rotterdam, 146 bbls tags.  
Salomon Bros & Co., by same, 31 bbls tags.  
Ladurberg, Thalman & Co., Princess Matoika, Bremen, 749 bbls tags.  
Wm. Schall & Co., by same, 139 bbls tags.  
R. I. Downing & Co., Old North State, London, 380 bbls tags.

### OLD ROPE

N. E. Berzen, Francisco, Hull, 99 coils.  
Brown Bros & Co., by same, 98 coils.  
Salomon Bros & Co., by same, 310 coils.  
American Express Co., Francisco, Antwerp, 190 coils.  
F. J. Keller Co., Alpine Range, Leith, 88 coils.  
Salomon Bros & Co., N. Amsterdam, Rotterdam, 36 coils.  
Bird Family & Co., by same, 181 coils.  
D. M. Hicks, Inc., Cameroun, Glasgow, 75 coils.  
Living National Bank, Pioneer, Antwerp, 124 coils.

### WOOD PULP

Brown Bros & Co., Mongolia, Hamburg, 500 bbls wood pulp.  
Nil on Rantoul & Co., Songoaar Stenkier, 1,000 bbls mechanical pulp, 200 tons.  
Nil on Rantoul & Co., Songoaar, Kristiania, 950 bbls mechanical pulp, 192 tons.

American Exchange National Bank, by same, 125 bbls dry sulphite, 25 tons.  
Indewater Papermills Co., Salborg, Christiania, 15,375 bbls wet pulp.  
American Woodpulp Corp., Tasmanic, Lundsval, 2,500 bbls dry sulphate.  
American Woodpulp Corp., by same, 2,500 bbls dry sulphite.  
A. J. Pagel & Co., Inc., Tasmanic, Oruskoldavik, 600 bbls dry sulphite.  
Castle, Gotthel & Overton, Lord Ormonde, Hamburg, 3,300 bbls woodpulp.

## PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 15, 1921

Castle, Gotthel & Overton, Detanof, Bremen, 207 bbls tags.  
Hudson Trading Co., Cellisto, 948 rolls news print.

## NORFOLK, VA., IMPORTS

WEEK ENDING OCTOBER 15, 1921

F. T. Keller Co., Seythian, Antwerp, 388 bbls bagging.

## BOSTON IMPORTS

WEEK ENDING OCTOBER 15, 1921

### PAPER STOCK.

Bird & Son, Inc., Mahopac, Antwerp, 430 bbls roofing tags.  
Bemis Bros. Bag Co., by same, 147 coils manila rope.  
J. Butterworth & Co., by same, 198 bbls paper stock.  
L. Butterworth & Co., Belgian, Liverpool, 77 bbls paper stock.  
Trum Smith Co., by same, 30 bbls new tags.  
F. Katzenstein & Co., by same, 23 bbls new tags.  
International Purchasing Co., by same, 226 coils manila rope.  
F. Butterworth Co., Inc., Missouri, Antwerp, 263 bbls paper stock and 206 coils manila rope.

### HIDE CUTTING

G. T. Russ Co., Belgian, Liverpool, 156 bags.  
F. Butterworth & Co., Inc., Missouri, Antwerp, 700 bags.  
J. Butterworth & Co., Inc., Bredelsdyk, Rotterdam, 659 bags.

## May Build Paper Mill at White Rapids

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 18, 1921—Surveys are being made in the vicinity of White Rapids on the Menominee river for development of a huge water power and location of a mill of some kind. Efforts to learn from the engineers the kind of industry to be located there have been unavailing but evidence points toward a new paper mill.

The engineering work is under the direction of T. W. Orbison, Appleton, one of the best known paper mill engineers in the west. Mr. Orbison declines to discuss his work except to say that a large water power development is contemplated.

The clearing is for a mill of considerable size. Abundant water power can be developed at White Rapids with comparatively little difficulty.

## Discuss Industrial Relations at Menasha

[FROM OUR REGULAR CORRESPONDENT.]

MENASHA, Wis., October 17, 1921—Employment managers of industrial institutions in the Fox River Valley met here last week for the purpose of discussing industrial relations and the unemployment situation. It is probable that this was the first of a

series of similar meetings which may result in an organization to better employment conditions.

Among the speakers was Miss Mary C. Baker of the employment department of the Kimberly-Clark Company. Representatives of other paper companies also attended the meeting.

## Address Connecticut Cost Association

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., October 17, 1921—Henry O. Fernald of the firm of Loomis, Suffern & Fernald, of New York City, addressed the members of the Connecticut Valley Branch of the Cost Association of the Paper Industry at the meeting held here this week. Mr. Fernald spoke on paper mill costs and also on income and federal taxes. Ralph H. Marrow, president of the branch, presided.

## Lambooy Label Co. in New Quarters

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., October 17, 1921—The Lambooy Label & Wrapper Company, Karl Lambooy, proprietor, has moved from the Crescent Engraving building to the third floor of the B. Hopper Company's building. The new quarters are being renovated and put in fine condition. Considerable new machinery will be installed in the near future.

# CONSOLIDATED PAPER BAG CO.

*General Offices:*  
125 Merrimac St., Boston, Mass.

*Factory:*  
Somerville, Mass.



*Manufacturers of*

## PAPER BAGS and SACKS of EVERY DESCRIPTION

Samples submitted on request

Inquiries Solicited

## SUPERIOR CHEMICAL CO.

JOLIET, ILLINOIS

*Manufacturers*

PAPER MAKERS' and FILTER

# ALUM

## STEARNS TANKS

BLOW-PIPES, STORAGE  
TANKS, ACID TOWERS, Etc.,  
OF WOOD.

HEAVY PAPER MILL WORK  
IS OUR SPECIALTY.

70 YEARS' EXPERIENCE.

*Enquire for quotations  
Have you our catalogue?*

THE A. T. STEARNS LUMBER COMPANY  
125 Taylor St., Neponset, Boston, Mass.



## BLEACHED SULPHITE

FOR

Writing, Book and Tissue Papers

# PARSONS

## Pulp and Lumber Co.

EDWIN J. DEWEY, Manager Pulp Sales

Offices, 1007-1010 Finance Bldg.,  
PHILADELPHIA, PA.

Mills at  
PARSONS, WEST VA.

## CLAFLIN CONTINUOUS BEATERS

produce a fine, smooth, strong, uniform stock

**The 250 Claflin Continuous Beaters**

Now in use prove that they are the Ideal Equipment for

Rope Manilla	Kraft Paper
Wall Board	Sulphite Screenings
Leather Board	Waste from Pulp Stones

**THE CLAFLIN ENGINEERING CO.**

Lancaster, Ohio

The Canadian Fairbanks-Morse Co., Montreal, Quebec  
Agents for Dominion of Canada

# WHITAR

TRADE MARK REG. U.S. PAT. OFF.

## NEWS BLUE METHYL VIOLET

We supply a complete line of colors suitable for paper

## THE WHITE TAR ANILINE CORP.

56 Vesey Street, New York

Works: Kearny, N. J.

## Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,

WEDNESDAY, October 19, 1921

The chemical market for the week has continued to be fairly active with small lots in good demand, and with prices tending to rise and fluctuate. Some uneasiness is apparent in the market because no one is certain just what the condition of affairs will be after the present seasonable improvement is over. Prices as a rule are being boosted in a feverish endeavor to get out from under and not be caught with large stocks purchased at high prices.

**ALUM**—Ammonia alum continues in fair demand with potash alum a close second. Orders are steady for the smaller lots and comparatively scarce for large quantities. The price of ammonia alum is from 350 to 375 cents a pound for the lump, 375 to 400 cents for the ground, and 400 to 525 cents for the powdered.

**BLEACHING POWDER**—A fairly constant demand for bleach continues, while the prices for the domestic product range around 2.25 to 3.00 cents a pound depending on quantity, and for the foreign bleach at from 2.00 to 2.25 cents a pound.

**BLANC FIXE**—The market for blanc fixe is moderately strong. Orders continue to come from the paper mills in sufficient numbers to show that their interest is increasing. The quotation on pulp is again \$40 to \$50 a ton depending on the grade required, and the powdered also remains at from 350 to 375 cents a pound.

**BRIMSTONE**—Orders for small quantities of this commodity have been in vogue during the past week, for dealers and manufacturers report few if any sales of large quantities. The price seems to be in equilibrium, remaining at \$15 to \$16 a long ton at the mines.

**CASEIN**—No casein has come to America from France for some time due to the irregular conditions which would place the price on the Parisian product way out of sight should any arrive here. A small amount has come from South America although the Argentine flush has not yet begun. Prices are rising and little casein is being sold at present. The demand will undoubtedly be appreciably larger when the Argentine flush commences. The price is at 8.00 to 9.00 cents a pound.

**CAUSTIC SODA**—The demand for caustic soda remains good and the prices firm at 3.25 cents a pound on the basis of 50 per cent.

**ROSIN**—The tendency is upward with a welcome in the rosin market. The soap and paper industries continue to buy heavily while the prices fluctuate to a marked degree. The prices are a bit lower this week with grade F selling at \$5.60, F at \$5.65, and G at \$5.90, all ex yard New York.

**SALTCAKE**—The chemical plants are providing a plentiful supply of saltcake which is well taken care of by a renewed demand from the glass trade. Saltcake still sells at from \$17 to \$25.

**SATIN WHITE**—Satin white is showing a firmer tone with prices remaining at or near 2.10 cents a pound.

**STARCH**—The demand for Globe starch has improved this last week and slightly higher prices are to be expected. It is now quoted at \$1.78 a bag and \$2.06.

**SULPHATE OF ALUMINA**—The paper industry is buying an average amount of sulphate of alumina with prices firm as follows: commercial grade at 1.60 to 2.00 cents a pound and iron free grade at 2.50 to 3.00 cents a pound.

**SODA ASH**—There is little reason to believe that the prices of soda ash will increase for several weeks at the least. It now sells at from 2.20 to 2.50 for the domestic, and at from 1.85 to 1.95 for the imported.

**TALC**—The talc market is quiet, but improving slowly, while a good feeling exists through the trade. The price ranges nominally from \$14 to \$18 a ton.

## Market Quotations

(Continued from page 59)

Solid Ledger Stock	2.00	@	2.25	New Black Soft.	.03	@	.03 1/4
Writing Paper	1.80	@	2.00	New Light Sec-			
No. 1 Books, heavy	1.50	@	1.75	onds	.02 1/4	@	.02 3/4
No. 2 Books, light	1.25	@	1.50	Khaki Cuttings	.03	@	.03 1/4
No. 1 New Manila	2.75	@	3.00	Corduroy	.02	@	.02 1/4
No. 1 Old Manila	1.50	@	1.75	New Canvas	.08	@	.08 1/4
Container Manila	.90	@	1.00	New Black Mixed	3.00	@	3.25
Old Kraft	2.00	@	2.25				
Overissue News	.90	@	1.00	White, No. 1—			
Old Newspaper	.60	@	.70	Repacked	.06	@	.06 1/4
No. 1 Mixed Paper	.50	@	.60	Miscellaneous	.04 1/4	@	.04 3/4
Common Paper	.40	@	.50	White, No. 2—			
Straw Board, Chip	.40	@	.50	Repacked	.03	@	.03 1/4
Binders' Bd. Chip	.40	@	.50	Miscellaneous	.02 1/4	@	.03 1/4
Domestic Rags—New				Thicks and Blues			
Price to Mill, f. o. b. Phila.				Repacked	1.85	@	2.00
Shirt Cuttings—				Miscellaneous	1.55	@	1.75
New White, No. 1	.09	@	.09 1/4	Black stockings	1.75	@	2.25
New White, No. 2	.05 1/4	@	.06	Roofing Stock—			
Sideline, No. 1	.05 1/4	@	.06	No. 1	.90	@	1.00
New unbleached	.08	@	.09	No. 2	.80	@	.90
Washables	.03 1/4	@	.03 3/4	No. 3	.70	@	.80
Fancy	.05	@	.05 1/4	No. 4	.75	@	.85
Cottons—according to grades—				No. 5A			nominal
Blue Overall	.05	@	.05 1/4	B.			nominal
New Blue	.02 1/4	@	.02 3/4	C			nominal

## BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper				Wood, Vat Lined	47.50	@	50.00
Bonds	.08 1/2	@	.09	Filled News Board	42.50	@	
Ledgers	.09	@	.10	Solid News Board	42.50	@	47.50
Writings	.08 1/2	@	.09	S. Manila Chip	55.00	@	
Superfine	.15	@	.16	Pat Coated	75.00	@	
Eme	.12	@	.13				
Books, S & S C	.07 1/2	@	.08				
Books, M. J.	.07	@	.08				
Books, coated	.09	@	.10				
Label	.10	@	.11				
News, sheets	\$4.50	@					
News, rolls	.04	@					
Manila—							
No. 1 Manila	\$7.00	@					
No. 1 Fibre	8.00	@					
No. 1 Jute	8.00	@					
Kraft Wrapping	7.00	@					
Common Bogus	3.00	@					

## Boards

(Per Ton Destination)

Chip	\$4.00	@	
News, Vat Lined	42.50	@	

## TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper				Sulphite bleached	.90	@	95.00
(Mill Prices to Jobbers f. o. b. Mill)				Sulphate	.60	@	65.00
Bond—							

## Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—				White Lin. Cut	3.00	@	
White Lin. Cut	3.00	@		Soft White Book			
Soft White Book				Shavings	.28	@	.60
Shavings	.28	@	.60	White Blk News	1.90	@	
White Blk News	1.90	@					

## Book and Ledger—

Flat Magazine and Book Stock

(old)	1.15	@	
-------	------	---	--

Light and Crumpled Book Stock

.90	@	
-----	---	--

Ledgers and Writings

1.60	@	
------	---	--

Solid Ledgers

1.60	@	
------	---	--

Manila—

New Manila Cut

1.85	@	
------	---	--

Printed Manilas

.70	@	
-----	---	--

Kraft

2.25	@	
------	---	--

News and Scrap—

Strictly Overissue

.85	@	
-----	---	--

Folded News

.90	@	
-----	---	--

No. 1 Mixed Pa-

.60	@	
-----	---	--

Domestic Rags—

Price to mills, f. o. b. Toronto.

Per lb.

No. 1 White shirt

.08 1/4	@	.08 3/4
---------	---	---------

No. 2 White shirt

.05 1/4	@	.05 3/4
---------	---	---------

Fancy shirt cut-

.05 1/4	@	.05 3/4
---------	---	---------

No. 1 Old whites

.03 1/4	@	.04
---------	---	-----

Thicks and Blues

.02	@	.02 1/4
-----	---	---------

Black stockings

2.00	@	
------	---	--

Roofing stock

1.20	@	
------	---	--

No. 2

1.10	@	
------	---	--

Roofing stock

.04	@	
-----	---	--

Manila rope

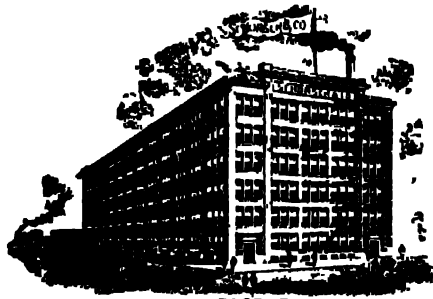
.01 1/4	@	
---------	---	--

No. 2

.01 1/4	@	
---------	---	--

Gunny bagging

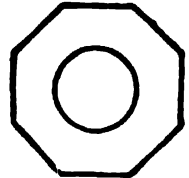
.01 1/4	@	
---------	---	--

*The Home of Quality*FACTORY  
132ND TO 133RD ST & BROOK AVE

# PAPER BAGS

**Sacks and Specialties**

ESTABLISHED 1901

**SCHORSCH & CO.***Manufacturers***500 East 133d Street : New York**This Registered Trade  
Mark Octagonon a Paper  
Bag Vouches for  
Its Good Quality

## Missisquoi Pulp and Paper Company

**SHELDON SPRINGS VERMONT****White and Tinted Bristols—White  
Blanks—Index Bristol and Special-  
ties in Card Boards.**

## POTDEVIN

**PAPER BAG  
ENVELOPE (Open-end  
Center or  
Side-Seam)  
PAPER WAXING**

## MACHINERY

**POTDEVIN MACHINE CO.****1223 38th Street Brooklyn, N. Y.**

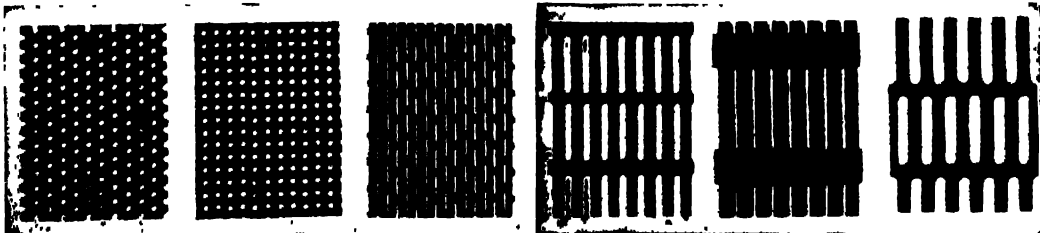
Est. 1893—Inc. 1906 Phones: 5180-5181 Sunset

## PULP STONES

of absolutely the finest quality

**LOMBARD & CO.***Importers and Dealers***236-238 A Street : BOSTON, MASS.***Produce at Montreal, Canada*

## PERFORATED METALS

*All sizes  
and  
shapes  
of Holes**All kinds  
and  
thicknesses  
of Metal*

For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

**The Harrington & King Perforating Company****618 No. Union Ave., Chicago, Ill., U. S. A.****New York Office, 114 Liberty St.**

# WANT AND FOR SALE ADVERTISEMENTS

## CLASSIFIED RATES

Minimum rate for advertisements of 25 words or less, first insertion, \$1.00.

**SITUATION WANTED**, 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words accepted.

**HELP AND MISCELLANEOUS WANTS**, and small For Sale Ads, 4 cents a word for each and every insertion. No ads of less than 25 words accepted.

When answering advertisements, please address the Box Number given in ad.

Answers can be forwarded care Paper Trade Journal, and will be promptly forwarded without extra charge. All should be sent to the New York office, 10 East 39th street. And all should be addressed as the advertisement directs in every case and not simply to the paper.

All classified ads for the current issue must be in hand not later than Monday preceding date of publication.

## HELP WANTED

**WANTED**—Color and Dyestuff Salesman for Middle West by an old established manufacturing and importing concern, to call on the manufacturing trade. Liberal compensation to a successful party. State previous experience, references, age and salary expected. Address, Box 4418, care Paper Trade Journal. O-27

**WANTED**—Superintendent. Experienced on Container and Combination Boards. Must be first class in mill construction and maintenance. He able to handle help and get results. Central territory, large mill. Good opportunity for right man. Address, Box 4481, care Paper Trade Journal. O-20

**WANTED**—Night Superintendent. Box-board mill in Middle West. Must understand container and combination boards and be able to handle help. Good position for right man. Address, Box 4482, care Paper Trade Journal. O-20

**COAL SALE AGENTS**—A Coal Company with a large bituminous tonnage desires agents in various localities to sell coal to manufacturers and others on a commission basis. Send references. Address, Box 4485, care Paper Trade Journal. O-20

**EXPERIENCED MACHINE TENDER** **WANTED** on Cylinder Machine making Box Board. State experience and salary expected. Good job. Steady work. Address, Box 4518, care Paper Trade Journal. N-3.

**WANTED**—Practical Superintendent for Box Board Mill. Must be first class man and get results. State age, salary and all details in first letter. Address, Box 4530, care Paper Trade Journal. O-20

## Wanted A Real Salesman

One of the best known concerns in the country offers a genuine opportunity to a live wire salesman who can get more than his share of the business in his field - and then dig up new markets.

He must be able to point to a commendable selling record, have a convincing personality and be a conscientious worker. Previous experience in paper manufacturing industry will help him but is not necessary.

To the right man this job will be a stepping stone to bigger opportunities with us.

If you have not been earning at least \$7,500 per year do not apply. If you have, write us about your experience naming salary desired. Your letter will be kept in strict confidence.

Address Box 4533, care Paper Trade Journal

## HELP WANTED

**WANTED**—Super-Calendar men on Hook Paper. Steady work. Newton Falls Paper Company, Newton Falls, N. Y. O-20

**WANTED**—Salesmen, Coarse Paper, Twine, etc., by new firm. New York Jobbet, held unlimited. On commission basis. A good opportunity for right party to grow up with. Communications strictly confidential. Address, Box 4537, care Paper Trade Journal. O-27

**SALESMEN**—Thoroughly familiar with Waxed Paper Lunch Rolls, as well as printed and plain Waxed Papers. All territories open. Commission basis only. Address, Box 4538, care Paper Trade Journal. O-20

**WANTED**—Experienced salesman covering New York State, Wrapping and Printing Papers. To the right man a drawing account will be paid, and a worth while future assured. Address, Box 4539, care Paper Trade Journal. O-20

**WANTED**—Energetic Salesman to sell Paper on commission basis. Splendid opportunity for right man. Call Room 601, 261 Broadway, New York City. O-20

**WANTED**—Two Machine Tenders, experienced in making Saffroning and Dendroning Felt. Give full particulars. Address, Box 4540, care Paper Trade Journal. O-27

**WANTED**—Night Boss for small Mill making Chip and Box Board. Address, Box 4550, care Paper Trade Journal. O-20

## SWEDISH PAPER AND PULP

Leading exporter in Sweden desires to make arrangements with one or more reliable Agents with good connections among buyers of Swedish paper and pulp in the United States.

Reply to: Swedish Chamber of Commerce, Produce Exchange, New York.

## PAPER SALESMAN

Large New York Paper House seeks energetic young man, having thorough knowledge of all grades of paper, sources of supply, jobbers, and large consumers. An excellent opportunity for the right man. State age, experience in detail, and remuneration desired. Address, Box 4534, care Paper Trade Journal. O-20

## SITUATIONS WANTED

**SUPERINTENDENT** desires position. 20 years' experience on all grades of Combination and Container Board familiar with repairs, maintenance and operation of every department. Knows how to get quality and production. Can furnish the very best of references. Address, Box 4347, care Paper Trade Journal. tf

## SITUATIONS WANTED

**PAPER SALESMAN**, New York City, wants connection with Mill Agency Company. Can produce large amount of business, with right kind of cooperation. Drawing account on commission basis. Correspondence invited with responsible agencies. Address, Box 4504, care Paper Trade Journal. tf.

**MASTER MECHANIC** desires position. Expert Construction, Reconstruction, Installing Equipment and Economical Maintenance. Ground Wood and Sulphite from the log to finished product. Fourdrinier machines making Book, Bond, News and Specialties. Cylinder Machines making Board, Bristol and Tissue Specialties, using water, steam and electric power. Address, Box 4425, care Paper Trade Journal. D-22.

**POSITION WANTED**—By Superintendent of 20 years' experience in mill making news, Manillas, Water and Dry Finish Fibres Sulphite and Sulphate Test Papers. Good organizer and executive. Best of references furnished. Address, Box 4461, care Paper Trade Journal. O-27.

**PAPER MILL SUPERINTENDENT**, with long practical experience on Roofing Felt, would like to change position. Thoroughly understands repairs construction and rebuilding. Address, Box 4492, care Paper Trade Journal. O-20

**MECHANICAL ENGINEER AND DRAFTSMAN** desires position, 14 years experience in descriptive drafting, planning, estimating, and not efficiency engineering. Pulp and Paper Mill. At present employed. Address, Box 4519, care Paper Trade Journal. O-27.

**MACHINE TENDER** of wide experience is looking for position in Paper Mill where production, quality and economy is required. Experienced on Tag, Box Board, Rope Paper, Roofing and Specialties. Address, Box 4520, care Paper Trade Journal. O-27

**SITUATION WANTED**—Cylinder Machine Tender desires position. First class man, married. 12 years' experience on Crepe and Tissue. Can furnish best references. Address, Box 4521, care Paper Trade Journal. O-20

**YOUNG MAN**, 25, ambitious, who has been in the Coarse and Fine Paper Trade for the last five years would like to make connection with reliable firm where there is a possibility for good future. Has worked in the capacity of Correspondent, Office Man and Salesman. Also familiar with practically all grades of Paper, Boards, etc. Address, Box 4522, care Paper Trade Journal. tf

**A BOND, WRITING AND LEDGER SUPERINTENDENT** desires position as Superintendent of a Mill. Have had twenty-seven years' experience in Bond and Writing Mills and have had full charge as Superintendent for the last 10 years. Can furnish best of references. Address, Box 4528, care Paper Trade Journal. O-20

**SUPERINTENDENT**; now employed would like to make change. Understands thoroughly the Cylinder Machines. Making high grade Box Board. Tests, Containers, and Fourdrinier specialties. Good on Construction, repairs and installations of all kinds of machinery connected with Paper Mills. Can give best of references as to my ability to get production, organize and handle help. Address, Box 4529, care Paper Trade Journal. O-20

**THOROUGH SUPERINTENDENT** desires position, experienced on tissues, all grades Crepe, Semi-Crepe, Toilet, Towels, Napkins, Fourdrinier and Cylinder Machines. High grade man on Kraft and Kraft Specialties, Waxing Tissues, plain and colored, Twisting Fibres, A-1 on Colors. Thoroughly understand the conversion of Waxing Tissues and Colored Crepe Papers. Good organizer. References furnished. Address, Box 4481, care Paper Trade Journal. N-3.

## SITUATIONS WANTED

**PRACTICAL SUPERINTENDENT**, desires position. 20 years' experience on Asbestos Papers, Felts, Building Papers and Combination Boards. Familiar with repairs, maintenance and operation of every department. Middle-aged, married man. Have family. Can furnish the very best of references. Address, Box 4530, care Paper Trade Journal. O-20

**WANTED**—Position as General Superintendent or Superintendent, by a practical Pulp and Paper Maker who has been very successful in handling help and getting results. Am at present engaged as General Superintendent in a four machine Mill, also Sulphite and Ground Wood. Fast running News, Bag and Specialties. Address, Box 4540, care Paper Trade Journal. O-20

**SITUATION WANTED**—Swedish Chemical Engineer, graduated from University and with two years' experience as Sulphite Engineer in Sweden, desires position as Chemist. Address, Box 4541, care Paper Trade Journal. O-27

**WANTED**—Position as Paper Mill representative or Mill Salesman in New York City. Have had fifteen years' experience as manufacturer and jobber. Familiar with practically all lines of paper. Address, Box 4551, care Paper Trade Journal. O-27

## FOR SALE

**FOURDRINIER PART**—One 90" P & J Fourdrinier part with Millapough suction couch roll and pump, 40 ft wire.

**JORDANS**—Several Horne and Emerson on way to our works. One Noble & Wood; two No 1 Claffins.

**KOLLERGRANGS**—One kollergang, size of stone 56" x 15" face.

**PULLEYS**—One 97" dia x 34", double arm, modern pulley. Large cone pulleys. Large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches. Also steel pulleys.

**PUMPS**—One dry suction, single vacuum, 12 x 22 x 18 Knowles, one 1,000 gallon Blake Tank Pump, several 7" and 8" Lawrence Machine Company, Class A, High Duty Pumps, Fan Pumps, new stock pumps, single and double.

**PRESS ROLLS**—Large number of different sizes on hand. Some suitable for rubber covering. Six rolls about 15" x 98" just received. Some brass and some rubber covered.

**ROTARIES**—Two 84" x 22" horizontal.

**REELS**—One two-bowl 58" face. Several new ones going through works. State which you desire.

**RAG CUTTERS**—One Daniels No 2, one Taylor & Stiles.

**SLITTERS**—Two Dietz Slitters.

**SCRIPERS**—One 10-plate open side Packer with plates; one 12-plate open side Packer with practically new plates. Three Rath centrifugal.

**WINDERS**—One 80" single drum P & J make; one 100" double drum, P & J make.

Advise us of your wants

**MILLS MACHINE COMPANY**  
LAWRENCE, MASS.

## SITUATIONS WANTED

**SITUATION WANTED**—Paper Salesman with an experience of 19 years in the importing and exporting of Paper, well acquainted with every domestic and imported grade of paper and its sources of supply in this and European countries, and at present employed, desires to make a connection with a first class Mill or Jobbing House. Can furnish highest references from his customers and present employer. Thoroughly acquainted with all grades of Paper including Box makers' papers and imported paper mill machinery. Can speak English and German fluently and have a working knowledge of French and Spanish. Address, Box 4542, care Paper Trade Journal. O-20

## MISCELLANEOUS

**WILL PURCHASE FOR CASH**, small, one Machine Mill, preferably Fourdrinier, within three hundred miles of New York. Must be in good condition. Send full particulars to Manitou Paper Co., Inc., Broadway, 73rd St and Amsterdam Ave., New York City.

**WANTED**—2 3-Pocket Grinders, 51" diameter Ring Oiling 2 Stone Sharpening Devices, 2 6" Centrifugal Stock Pumps, 1 Pressure Filter, capacity 500,000 gallons, 21 hours 1 60 lb. Pressure Pump, direct connection to motor, 200 gallons minute, 3 phase, 60 cycle, 600 volts. Address, Box 4541, care Paper Trade Journal. O-27

**WANTED**—One Boiler about 60" x 16" for heating, one Iron stack about 30" x 60", two Barkers with Lombard attachment, one small Barker knife grinder for small Mill. One to take single knife will do. Address, Box 4545, care Paper Trade Journal. O-20

**WANTED**—Three Boilers preferably iron tub capacity 1,000 lbs. to 1,500 lbs., double lighter construction without washing cylinders. Also three Jordans about 20 tons capacity each. Address, Box 4546, care Paper Trade Journal. O-27

**WANTED TO BUY**—A quantity of Paper Machine Drives approximately 36" diameter 681" length. Advise what you have to offer, giving full details. Address, Box 4547, care Paper Trade Journal. O-20

**CONDITIONS SURROUNDING** present ownership of most modern Kraft Pulp Mill of large capacity in splendid financial shape and favored with great advantages over any other Mill manufacturing Kraft Pulp on this continent. Make sale of property desirable. Will deal direct only. Address, Box 4548, care Paper Trade Journal. O-20

## FOR SALE

**FOR SALE**—11 Calendar Rolls, 58" face, 8' to 16" diameter. 2 No 1 Claffin Engines. 1 small Jordan Engine. 1 6" Horizontal Water Pump. 2 Air Fans. 5 Drives. 48" diameter and 120" face complete with frames and gears. Complete triple-deck frames for 44 Drives. Will arrange terms to suit. Chesapeake Paper Board Co., Baltimore, Maryland. O-20.

## FOR SALE

**FOR SALE**—Roofing and Saturating Machines, 72"x36" wide. Chilled steel rolls. Also Painter Mixing Machine, Grinders, etc. Address Box 4310, care Paper Trade Journal. O-27

**FOR SALE**—9 Dryers, 28" x 52", complete with frames, felt and rolls, gears, two cone pulleys and steam connections. Address, Box 4386, care Paper Trade Journal. O-27

**FOR SALE**—One 600 H.P. Sarge-Cochrane Hot Water Softener, capacity 2,000 gallons per hour, complete with chemical solution tank, feed apparatus filter, etc. Address, Braycott Mills, Inc., Fulton, New York. O-20

**FOR SALE**—Two Hoffman Couch Rolls, seventy-eight inches in diameter, need recovering. Address, Box 4548, care Paper Trade Journal. N-10.

**COAL**—Moshannon and 'E Seam' bituminous coals, low sulphur low ash. Lowest freight rate east and north. \$2.35 net ton, 100 lb. mines. Hadden-Kelley Coal Company, 209 Market St., Clearfield, Pa. O-27

## Rebuilt Paper Mill Machinery

**In Stock and Guaranteed Not Where Is and As Is**

**FOURDRINIER PAPER MACHINE**—One 112", one 96", one 72".

**FOURDRINIER PARTS**—Pusey & Jones 137", 118", 112", 107".

**PRESS PARTS FOR PAPER MACHINES**—Pusey & Jones Bell Crad, housing two sets 18" x 114", three sets 18" x 110", two sets 18" x 96", Black & Clawson Swing Arm housings with rolls.

**DRYERS**—Four 48" x 111", sixteen 48" x 106", ten 48" x 60", one 84" x 67".

**MARSHALL DRIVES**—8 Black & Clawson self-contained stand with friction clutch cone pulley and 6" x 7" mortise gears. Mortise gears and pinions for Pusey & Jones Marshall drives 6" to 8" face.

**CHILLED CALENDERS**—One 66" face, five roll; one 41" face, five roll.

**DILLON DOCTORS**—For Machine Calenders 60" to 120" face.

**SLITTERS AND WINDERS**—One 120" Warren, one 82" Pusey & Jones two drum, one 108", 44", 36" Kidders.

**REELS**—Pusey & Jones two drum upright 84" to 114".

**BEATERS**—Six 72" x 43" Noble & Wood, four 66" x 42" Noble & Wood, equipped with three-cylinder washers, one Dills 62" x 50" iron tub, one Jones 62" x 52", eight Horne 36" x 36".

**JORDANS**—One Wagg Majestic, three No. 2 Dillon Improved, one large Horne, five Monarch, one Pony Monarch, two Pope Brushing Engines.

**SCRIPERS**—Four 12 plate open side Packer.

**STIFF PUMPS**—Deane Triplex 5" x 12", Gould Triplex 8" x 10", Sandusky Triplex 4" x 6".

**REVOLVING SHEET CUTTER**—One 104" Horne, one 84" Clark, one 74" Finlay, one 50" Hamblet horizontal, two 42" Finlay.

**WET MACHINES**—Four 72" Bagley & Sewall Hydraulic.

**FRANK H. DAVIS COMPANY**

175 Richdale Avenue  
CAMBRIDGE, 40, MASS.

## A BUDGET COST SYSTEM FOR PAPER MILLS

Price (to Non-Members) \$10

Cost Association of the Paper Industry

18 East 41st Street, New York City

Nov 3

## MODERN PULP and PAPER MAKING

*A Practical Treatise by G. S. Witham, Sr.*

The first practical book by an acknowledged authority on the manufacture of pulp and paper as it is carried on in America today

Profusely Illustrated. Bound in Buckram.

\$6.00 per Copy in U. S. and Canada. \$6.50 in Foreign Countries. Send your orders to

**Lockwood Trade Journal Co., Inc.**  
10 East 39th St., New York, N. Y.

## GIBBS-BROWER BULLETIN

### We Have Paper Mills For Sale

Also Two Used Fourdrinier Paper Machines Trimming Respectively 80" and 68" in A-1 Condition. Can Be Inspected in Operation.

#### FIRST PAPER MACHINE:

One Pusey and Jones Fourdrinier part complete for wire 89" x 19" 8" Two presses 24 drivers, 36" diam x 85" face, complete, double deck One nine roll stack of calendars One Shurtle Brow two-spool upright reel One Moore & White four-drum slitter and rewinder Marshall drive with all back stands and drives complete Now running on Bond and Envelope. Delivery October 15th. Price \$25,000.

#### SECOND PAPER MACHINE:

One Black and Clawson Fourdrinier part complete for 75" x 50" wire Two presses 22 drivers, 36" diam x 72" face, complete, double deck One six roll calendar stack One two-spool upright reel One two-shaft Manning Winder and Slitter Marshall drive for variable speed, complete with Erie No 4 Variable Speed Twin Engine Now running on Envelope Paper Delivery January 1st Price \$12,500

#### GIBBS-BROWER COMPANY

*Paper and Pulp Mill Brokers*

261 Broadway, New York City

Telephone—Barclay 8828

OUR MOTTO—"Service First"

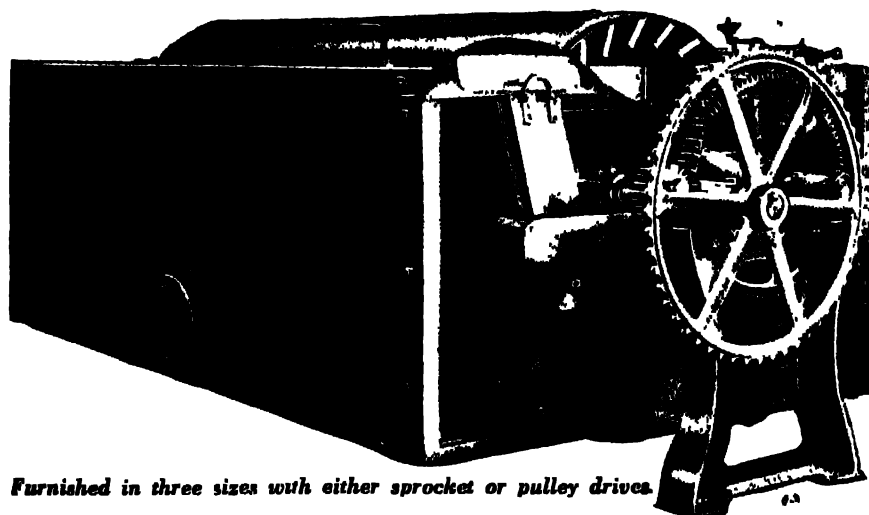
## Paper Executive Wanted

**A** POSITION with a big future in an old established firm is open to a man who can qualify as General Manager of Paper department. The man we want must be an experienced executive, thoroughly familiar with requirements of big paper buyers,—especially newspaper publishers. This is an exceptional opportunity and applicants are requested to write fully regarding experience, compensation expected, etc. All correspondence will be treated in strict confidence. Address Box 4535, care Paper Trade Journal.

## THE WOOD'S MACHINE

Distinctive performance and intensified confidence in this machine as a Pulp Thickener, Save-All, Washer or Water Filter insure success in its building.

On the market but a few years, our installations number more than Eighty-five. Twenty-nine sold the past year.



*Furnished in three sizes with either sprocket or pulley drives.*

MADE BY  
**GLENS FALLS MACHINE WORKS**  
GLENS FALLS, N. Y.

*Try our Split Cams for your Flat Screens*

**SIMPLICITY**, in cylinder and vat construction, operation automatic, and without couch roll, doctor or any complicated moving parts

**DEPENDABILITY**, in its simple revolving cylinder only, with nothing to get out of order, requiring little attention, and having a patented principle of maintaining wires always clean, insuring continuous performance.

**PRODUCTIVENESS**, enormous, through clean wires, large screening surface, patented unique method of discharge and freedom from shut-downs.

**DURABILITY**, by rigid construction, ample bearing surfaces, nothing to injure wires and highest grade materials.

All these enhance its value and involve upon you the duty of investigation.

**Architects and Engineers**

**CAREY, JAMES L.**, Paper Mill Architect and Engineer, 208 North Laramie avenue, Chicago, Ill.

**CHAPMAN, C. A., Inc.**, Paper Mill Architects and Engineers, 28 Jackson Boulevard E., Chicago, Ill.

**SNOW, S. M.**, Mill Architect, Engineer, Paper and Pulp Mills, Steam and Water Power Plants, 55 Kilby street, Boston, Mass.

**Rags, Paper Stock, Etc.**

**BERLOWITZ, PAUL**, 123 Nassau street, New York. Importer of Rags, Haggings, New Cuttings.

**CLYNN, MICHAEL**, 54 Columbia street, Brooklyn, N. Y.

**GOLDSTEIN, R., & SON**, 1143 Scott Street, Baltimore, Md. Cotton Rags and Paper Stock

**HILLS, GEO. F.**, 226 South Street, Branch House, 276 W. 25th street, N. Y. C.

**LIVERPOOL MARINE STORE CO.**, Liverpool, England. L.M.S. Wood Tag, Manila, Rope and Star Brands (Registered).

**SIMMONS, JOHN, SONS**, Paper and Paper Stock, 28 and 30 South Marshall street Philadelphia, Pa.

**MISCELLANEOUS****Bale Ties**

**WILSON, H. P. & H. F.**, Manufacturers of Steel Wire Bale Ties, for baling all compressible material. 544 West 32nd street New York City.

**Boards**

**MILLER PAPER CO., FRANK P.**, high grade specialties Boards, East Downtown, Pa.

**Special Machinery**

**SWIFT, GEORGE W., JR.**, Designer and Manufacturer of Special Machinery for Manufacturing and Printing Paper Goods Bordentown, N. J.

**BOOKS ON PAPER MANUFACTURE**

Subscriptions are being taken for the new Textbooks on the Manufacture of Pulp and Paper of the Joint Committee on Vocational Education of the Pulp and Paper Industry, a complete set of which should be owned by every firm or individual connected with the industry.

The set will be complete in five volumes. Volumes I and II deal with arithmetical operations, elementary mathematics, drawings, etc. Volumes III, IV and V, to be issued shortly, will deal with pulpwoods and their preparation; manufacture of pulp; analytical methods; and paper manufacture in all its aspects.

Volumes I and II are now on sale at \$5.00 a volume. In the selection of classroom problems bearing on the principles and practice of pulp and paper manufacture they represent the highest standard in textbook publishing.

Orders, with remittances, will be filled by the Technical Association of the Pulp and Paper Industry, 18 East Forty-first Street, New York.

**Blotting Paper of the Best Quality**

MANUFACTURED BY

**THE EATON-DIKEMAN COMPANY**

LEE, MASS.

Manufacturers of Blotting, Matrix, Filter and all other grades of absorbent papers.

Registered brands Magnet and Columbian, also Lenox and Arlington.

SEND FOR SAMPLES AND PRICES

**The Northern Wood Supply Co.**

GENERAL

**Pulpwood Dealers**

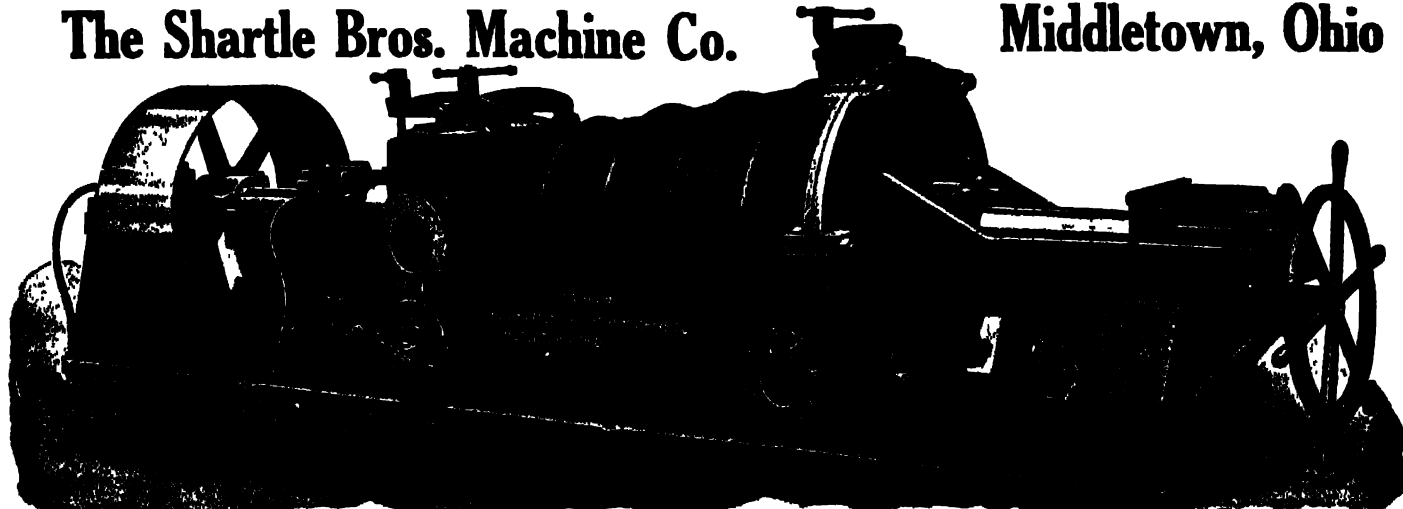
Hearst, Ontario, Canada

*Correspondence Invited*

ALL CLASSES OF PULPWOOD

**The Shartle Bros. Machine Co.**

Middletown, Ohio



**FREDERICK L. SMITH**

21 EAST 40TH STREET, NEW YORK

**PULP AND PAPER MILL  
ENGINEER****GEORGE F. DREW**MILL ARCHITECT AND ENGINEER  
BRUNSWICK, MAINEFor the past 22 years Chief Engineer for the Pejepscot Paper Co.  
**SPECIALTY:** Pulp, Paper and Saw Mills  
Cotton, woolen, worsted, cordage, silk mills, and their equipment.  
Appraisals, adjustments.**V. D. SIMONS**

INDUSTRIAL ENGINEER

Pulp and Paper Mills, Hydro-Electric and Steam Power Plants  
Electrification Paper Mill Properties  
39 S. La Salle St., Chicago**H. B. PRATHER**

CONSULTING ENGINEER

CONSULTATIONS      REPORTS      ESTIMATES  
Complete Designs Pulp and Paper Mills—Steam and Electric  
Power Plants—Equipments

600 ROCKEFELLER BLDG., CLEVELAND, OHIO

**HARDY S. FERGUSON** CONSULTING  
ENGINEERMember AM. SOC. C. E., Member AM. SOC. M. E.,  
Member Eng. Inst. Can.280 FIFTH AVENUE, NEW YORK CITY  
Paper, Pulp and Fibre Mills, Including Building and Complete  
Mechanical Equipment, Water Power Development, Dams,  
Storage Reservoirs and Other Hydraulic Structures,  
Examinations, Reports, Estimates of Cost, Designs,  
Specifications, Valuations**WILLIAM T. FIELD**

Consulting Engineer

286 Broadway,  
New York, N. Y.Flower Bldg.,  
Watertown, N. Y.

DESIGNS

ESTIMATES

REPORTS

**GEORGE F. HARDY**M. AM. SOC. C. E., M. AM. SOC. M. E., M. ENG. INST. CAN.  
Mill Architect and Consulting EngineerLangdon Building, 309 Broadway, New York  
**SPECIALTY:** Paper, Pulp and Fibre Mills, Water Power Develop-  
ments, Steam Power Plants, Plans and Specifications  
Evaluations, Reports, Consultation  
Cable Address "Hardstock," A B C 5th Edition, Bedford, McNeill  
Western Union—Bentley's**VITALE & ROTHERY****FOREST ENGINEERS**

527 Fifth Avenue

New York, N. Y.

**J.H. WALLACE  
& COMPANY**TEMPLE COURT BUILDING  
NEW YORK CITY USA  
CABLES TRIPLEX NY**PULP  
PAPER  
AND  
POWER  
PLANTS****ENGINEERS  
& CHEMISTS**INDUSTRIAL DESIGN  
PLANT IMPROVEMENT  
LABORATORY TESTS**TIMBERLAND SERVICE**

Estimates      Maps      Graphic Methods

**JAMES W. SEWALL, Forest Engineer**Old Town, Me.    Sanford, Fla.    Munsey Bldg., Washington, D. C.  
Largest Cruising House in America**JOHN F. CARRIGAN ENGINEERING**Consulting and Sales Engineering  
**POWER IS OUR SPECIALTY**Estimates, Reports, Detail Plans of Power Plants.  
CARRIGAN STOKERS for any BOILER, 50 to 300 H. P.  
AUTOMATIC HOT WELLS specially designed for PAPER MILLS.  
504 CUNARD BLDG., CHICAGO, ILL.**THOMAS L. TOMLINES & SON**

CONSULTING ENGINEERS

ASSOC. M. AM. SOC. C. E.;      317-319 CITY BANK BLDG.,  
M. AM. SOC. M. E.      SYRACUSE, N. Y.  
Paper, Pulp and Fibre Mills, Hy-      Steam Power Plants, Plans and  
draulic Developments, Hydro-      Specifications, Efficiency  
Electric Plants      Engineering  
CONSULTATION AND REPORTSTimber Lands Bought and Sold.  
Timber and Pulp Wood Estimates.**R. R. BRADLEY,**  
Consulting Forester

58 Telegraph Building, Hospital St., Montreal, P. Q.

**HERBERT S. KIMBALL**

M. Am. Soc. C. E.

CONSULTING ENGINEER

79 Milk Street, Boston 9, Mass.

Investigations and reports relating to the pulp and paper industry. Special atten-  
tion to the design of chemical equipment in Sulphite and Soda mills. Paper  
machine room construction and ventilation; plans for buildings and equipment.**SANFORD RILEY STOKER CO.**

WORCESTER, MASS.

Makers of

**RILEY  
STOKERS**

BOSTON

NEW YORK  
CINCINNATIPHILADELPHIA  
CHICAGOPITTSBURGH  
ST. PAUL**MURPHY IRON WORKS**  
DETROIT, MICH.

Makers of

**MURPHY  
FURNACES**

BUFFALO

DENVER

CLEVELAND

"A type to meet every stoker need"

THE  
**MANAGEMENT ENGINEERING AND DEVELOPMENT Co.**  
 7TH FLOOR CITY NATIONAL BANK BLDG.,  
 DAYTON, OHIO.

DESIGN, CONSTRUCTION AND OPERATION  
 OF  
 PULP, PAPER AND FIBRE MILLS  
 WATERPOWER DEVELOPMENT  
 STEAM POWER PLANTS.

PLANS AND SPECIFICATIONS  
 EVALUATIONS AND REPORTS  
 • • CONSULTATIONS • •

## Penn Paper and Stock Company

PACKERS OF ALL GRADES OF  
**WASTE PAPER**

240 N. FRONT STREET

PHILADELPHIA

## SLITTERS and SPECIAL MACHINES

for use in paper industry

**C. BENNINGHOFFEN & SONS**

Hamilton, Ohio

Send us your requirements regardless of what they may be.

TRADE MARK

# CAMACHINE

SLITTERS AND WINDERS

CAMERON MACHINE CO. BROOKLYN N.Y.

"WATERBURY"

**Felts-Jackets**

ORISKANY, N. Y.

OUR TIGHT FITTING, DIAMOND "W" JACKETS

WILL NOT LICK UP AT ANY SPEED

**1869** { MADE ONLY BY } **1921**

{ GUARANTEED BY }

H. WATERBURY AND SONS COMPANY, ORISKANY, N. Y.

## Job Lots, Rejections, Side Rolls Wanted

SPOT CASH paid for jobs in bond paper, white or colors, any grade that will cut down to 11 x 17, any weight. Send samples, with lowest spot cash prices. No lot too small, and none too large.

MIDWEST PAPER CO., 712 Federal Street, Chicago, Ill.

## STEBBINS ENGINEERING & MFG. CO. WATERTOWN, NEW YORK, U. S. A.

Manufacturers of

STEBBINS ACID SYSTEMS  
 DIGESTER LININGS,  
 BRONZE, LEAD AND  
 IRON FITTINGS, SUL-  
 PHUR MELTERS, BURN-  
 ERS, COMBUSTION  
 CHAMBERS AND RE-  
 CLAIMERS, BLEACHING  
 SYSTEMS.

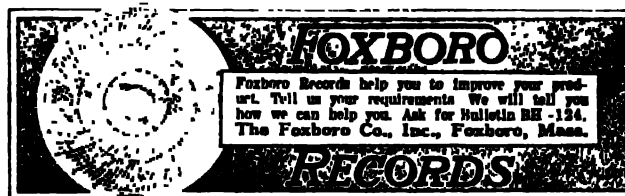
SPECIALTIES

We design, build, com-  
 pletely equip and put into  
 operation

**PAPER, SULPHITE  
 AND SODA PULP  
 MILLS**

PACIFIC COAST  
 REPRESENTATIVES

**SCOTT & MORGENIER**  
 184 Bacon Bldg., Oakland, Cal.



**FOXBORO**  
 Foxboro Records help you to improve your prod-  
 uct. Tell us your requirements. We will tell you  
 how we can help you. Ask for Bulletin BK-124.  
 The Foxboro Co., Inc., Foxboro, Mass.

**RECORDS**

118 5



Special Shaped Carbon, Black Diamond POINTS FOR TURNING Paper, Cotton  
 Chilled Iron and Hardened Steel Calendar Rolls, Hard Rubber, Fibre, etc.

Manufactured by **THOS. L. DICKINSON**, 26 Gold St., NEW YORK  
 Successor to John Dickinson, Established 1796.  
 Agents for Great Britain, C. W. BURTON, GRIFFITHS & CO.,  
 Ludgate Square, London

WILLIAM B. DILLON

## DILLON & BARNES

Paper Mill Products and Supplies

52 VANDERBILT AVENUE

NEW YORK

Telephone, 7353 Murray Hill

**WINDERS**  
 AND  
**REWINDERS**  
**SAMUEL M. LANGSTON COMPANY**  
 CAMDEN, N. J.

## SHERMAN PAPER COMPANY

Manufacturers of Roll Newsprint. H. W. & W. Process

Entire Product for 1921 Contracted

Mills at Felts Mills, Great Bend & Lefebvre, N. Y.  
 Main Office, Trust Co. Building, Watertown, N. Y.

## R. L. STEVENS, Jr., Woolworth Building, New York

EXCLUSIVE EASTERN REPRESENTATIVE OF THE RHINELANDER PAPER COMPANY

Glassine, Greaseproof, Manifold Parchment, Dry Finish Butchers', Machine Glazed Sulphites, 10 to 40 lb. basis, Special papers for Creping and Waxing, together with other Specialties; general line of Wrappings.

## Francis Hughes Company

Packers and Graders of

### Paper Mill Supplies

Correspondence Solicited

21st Street at Loomis, Chicago, Ill.

Private Switch on C. B. & Q. Tracks

## The Union Sulphur Company

Producers of the Highest Grade  
Sulphur on the Market . . .

ABSOLUTELY FREE FROM ARSENIC OR SELENIUM

### The Largest Sulphur Mine in the World

CALCASIEU PARISH, LOUISIANA

Main Offices: Frasch Building, 33 Rector Street, New York

Established 1895  
**DANIEL M. HICKS**  
(INCORPORATED)

### PAPER MILL SUPPLIES

200 Fifth Ave., New York

## "DRAPER" FELTS

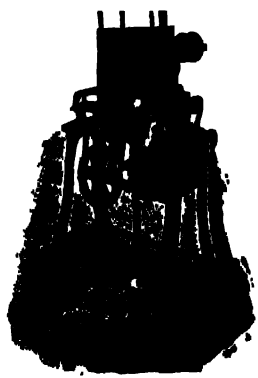
For Any Grade of Paper or Pulp

### ARE GUARANTEED

To Give Entire Satisfaction

MANUFACTURED BY

DRAPER BROS. CO., CANTON, MASS.



### GRISSINGER Patented AUTOMATIC TUBE MACHINE

Wire Stitched Tube  
TOILET PAPER  
MACHINERY

GRISSINGER MACHINE WORKS  
PHILADELPHIA, PA.

Patented { June 24, 1913  
August 10, 1915

## Samuel M. Green Company

Engineers

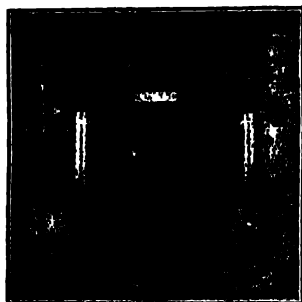
### CHLORINE and BLEACH SPECIALISTS



SPRINGFIELD,

MASS.

## NEW ENGLAND TANK & TOWER CO.



### WOOD TANKS FOR ALL PURPOSES

Everett Station, Boston, Mass.  
New York Office, 30 Church St.

ESTABLISHED 1851

IRA L. BEEBE

CYRUS E. JONES

## IRA L. BEEBE & CO.

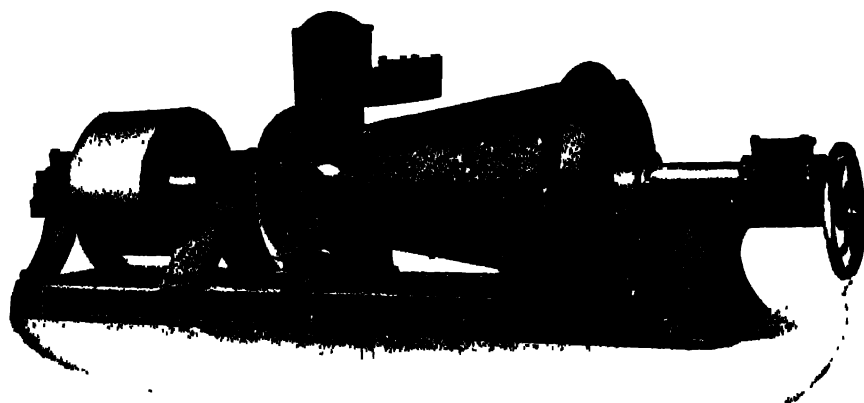
132 Nassau St., New York

IMPORTERS AND DEALERS IN



### WOOD PULP

# THE DILLON JORDAN



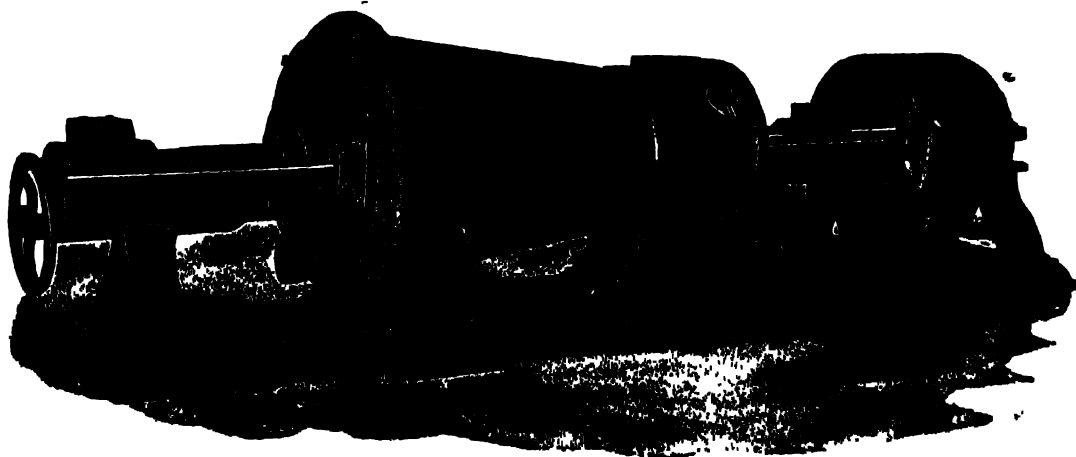
Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Outside stand fitted with gauge to keep the plug central with the shell.

*For full particulars apply to*

**DILLON MACHINE CO., Inc.**  
Builders of Paper Mill Machinery  
Lawrence, Mass.

**WE MAKE  
BEATERS AND  
JORDANS OF  
QUALITY**

**SIX SIZES OF  
JORDANS,  
BEATERS,  
FROM  $\frac{3}{4}$  LBS.  
TO 3000 LBS.**



**The Noble & Wood Machine Co., Hoosick Falls, N. Y.**

## Fourdrinier and Cylinder Paper Machines

Why Enlarge Your Beater Room?

Why Add More Power?



*All infringements on present patents and patents to be issued  
will be vigorously prosecuted*

This beater reduces stock to fibre of equal or better quality in half to one quarter of the time and with a saving of power which is remarkable. Do not take our word. Investigate. Manufactured by

**MILLS MACHINE COMPANY** . . . **Lawrence, Mass., U. S. A.**  
Builders of all kinds of paper mill machinery

## CLASSIFIED INDEX TO ADVERTISEMENTS

	Page		Page		Page
<b>ADDING MACHINE ROLLS.</b>		<b>CASEIN.</b>		<b>FELTS AND JACKETS (Cont'd.).</b>	
Paper Manufacturers Co.	50	Casein Mfg Co	3	Orr Felt & Blanket Co	49
<b>AGALITE.</b>		<b>CHEMICALS, COLORS, ETC.</b>		Shuler-Benninghofen Co.	4
Union Tilt Co.	56	Arnold, Hoffman & Co., Inc.	13	Waterbury Felt Co.	69
U. S. Tilt Co.	56	Heller & Merz Co.	13	Waterbury & Sons Co.	69
<b>ALUM.</b>		Du Pont de Nemours & Co.	33	<b>FILTERING SYSTEMS.</b>	
The Kalbfleisch Corp.	7	Kuttsch Pichardt & Co.	Front Cover	Norwood Engineering Co.	43
Pennsylvania Salt Mfg Co.	76	Newport Chemical Works	7	<b>FLOOR COVERINGS.</b>	
Superior Chemical Co.	61	Sandoz Chemical Works, Inc.	76	L. Sonneborn & Sons	5
Winkler Bros., Inc.	75	C. K. Williams & Co.	76	<b>FLOOR HARDENER (Concrete).</b>	
<b>ALUMINUM SULPHATE.</b>		<b>CLAY.</b>		L. Sonneborn & Sons	5
Aluminum Chemical Co.	—	Atterbury Bros.	56	<b>FOURDRINIER WIRES.</b>	
<b>ARCHITECTS AND ENGINEERS.</b>		John W. Higgins Co.	51	Appleton Wire Works	76
John F. Carrigan	68	Star Clay Company	76	Buchanan Bolt & Wire Co.	72
George F. Dhew	68	<b>COAL MINING.</b>		Cable Excelsior Wire Mfg Co.	76
Hardy S. Ferguson	68	Empire Coal Mining Co.	37	Cheney, Bigelow Wire Works	56
William F. Field	68	<b>COGS.</b>		Eastwood Wire Mfg. Co.	76
George F. Hardy	68	N. P. Howsher Co.	76	Thomas E. Gleason	75
Herbert S. Kimball	68	<b>COMPRESSORS (AIR).</b>		Indusay Wire Works	—
Management Engineering and Development Co.	69	The Nash Engineering Co.	65	Jos. O'Neill Wire Works	75
H. B. Prather	68	<b>CORDAGE.</b>		The W. S. Tyler Company	75
V. D. Simons	68	Columbian Rope Co.	—	<b>FURNACES (Automatic).</b>	
V. L. Smith	68	<b>CUTTING MACHINERY.</b>		Murphy Iron Works	68
Stebbins Engineering Co.	68	M. D. Knowlton Co.	51	<b>GAUGES (Pressure, Indicating and Recording).</b>	
Thomas L. Toulmin & Son	68	<b>DIE CUTTERS.</b>		Bristol Co., The	—
Vitale & Rothley	68	Hogson & Pettis Mfg Co.	2	Myron & Co. Co.	—
Joseph H. Wallace & Co.	68	Independent Die Co., Inc.	6	L. J. Co., Inc.	69
<b>ASBESTINE PULP.</b>		<b>DIGESTERS.</b>		<b>GUMMING AND GLUING MACHINERY.</b>	
International Pulp Co.	Front Cover	American Welding Co.	4	Petdevin Machine Co.	63
<b>BALL BEARINGS.</b>		M. W. Kellogg Co.	—	<b>HEATERS.</b>	
S. K. F. Industries, Inc.	—	Motex Chain Co.	56	Gordon Co., Inc. Robert	9
<b>BEATING ENGINES.</b>		<b>DRIVES, SILENT CHAIN.</b>		Brown-Wales Co.	—
Beloit Iron Works	23	Motex Chain Co.	56	<b>KNIVES, ETC.</b>	
Cladon Engineering Co.	61	<b>DRYER EXHAUSTS.</b>		Bolton & Sons, J. W.	9
Dayton Heat & Light Co.	31	The Nash Engineering Co.	45	Dowd Knife Works	—
Dillon Machine Co.	51	<b>DRYING SYSTEMS.</b>		Machinery Co. of America	—
Dixie Machine Works, Inc.	74	Bainsworth Co.	—	<b>LUBRICANTS.</b>	
Downingtown Mfg Co.	51	Open Coil Heater & Furner Co.	5	Vacuum Oil Co.	—
Emerson Mfg Co.	51	W. B. Pickles	—	<b>MICROMETERS.</b>	
Mills Machine Co.	71	<b>DYES, ANILINE.</b>		L. J. Gady & Co.	—
Noble & Wood Machine Co.	71	Calco Chemical Co.	61	Foreign Paper Mills, Inc.	3
Valley Iron Works Co.	—	Heller & Merz	71	<b>MILL COGS.</b>	
<b>BELT LACING, STEEL.</b>		National Aniline & Chemical Co.	61	N. P. Howsher & Co.	76
Flexible Steel Lacing Co.	—	The White Tar Aniline Corporation	61	<b>MOTORS.</b>	
<b>BELTING.</b>		<b>DYE STUFFS.</b>		B. B. Perkins & Son, Inc.	11
Cincinnati Rubber Mfg Co.	6	L. I. du Pont de Nemours & Co.	—	<b>OILS AND GREASE.</b>	
Goodlycat Tire & Rubber Co.	—	<b>ELECTRIC EQUIPMENT.</b>		Vacuum Oil Co.	—
The Rosendale Reddaway Co.	—	General Electric Co.	—	<b>PACKING.</b>	
R. D. Skinner & Co., Inc.	—	<b>ELECTRIC HOISTS.</b>		Jenkins Bros.	8
<b>BLASTING POWDERS.</b>		Shepard Electric Crane & Hoist Co.	—	<b>PAINTS &amp; VARNISHES.</b>	
Hercules Powder Co.	43	<b>ENGINEERS.</b>		Du Pont de Nemours Co., L. I.	—
<b>BOILERS.</b>		Samuel M. Green Co.	70	<b>PAPER BAG MACHINERY.</b>	
Heine Boiler Co.	27	J. O. Ross Engineering Corp.	—	Fischer Machine Co.	—
<b>BRONZE ROLL JACKETS.</b>		<b>ENVELOPE MACHINES.</b>		Potdevin Machine Co.	63
Sandusky Foundry & Machine Co.	49	Potdevin Machine Co.	63	<b>PAPER BAG MANUFACTURERS.</b>	
<b>BUCKETS (Elevator).</b>		I. L. Smith Machine Co.	—	Consolidated Paper Bag Co.	61
Hendrick Mfg Co.	10	<b>FELTS AND JACKETS.</b>		Lawrence Bag Co.	43
<b>CALENDER ROLLS.</b>		Albany Felt Co.	8	Schorsch & Co.	63
Farrel Foundry & Machine Co.	57	Appleton Woolen Mills	8	<b>PAPER BOX BOARDS.</b>	
Loddell Car Wheel Co.	57	I. Britt & Co.	70	C. L. Bontaux Co.	12
Norwood Engineering Co.	43	Draper Bros. Co.	—	<b>PAPER CUTTERS.</b>	
Perkins & Son, Inc., B. F.	11	Fitchburg Duck Mills	—	Humbert Machine Co.	57
<b>CARBON TOOLS.</b>		F. C. Huyck & Son	11	McLambin & Co., G. I.	—
Thomas L. Dickinson	69	Knox Woolen Co.	3		
		Lockport Felt Co.	51		

*Paper Stock*

## NOW IS THE TIME TO BUY OUR RAW MATERIALS

Out of our forty different grades of paper stock you are assured a steady, reliable source for procuring raw materials in practically every branch of paper making. Having specialized for 35 years in this one field you can depend upon a clean, well-packed, uniform product throughout; fulfillment of delivery promises, and because of our output of 300 tons daily, big tonnage at all times. Write us your wants.

Mendelson Bros. Paper Stock Co.,

General Offices: 918 So. Michigan Ave., Chicago, Ill.  
Long Distance Phones, Harrison 2346 and 1937

# Buchanan & Bolt Wire Company

ESTABLISHED 1878 AT HOLYOKE, MASS.

Makers of Highest Grade Fourdrinier Wires, Dandy Rolls, Cylinder Covers, Brass Wire Cloth of all Meshes for Paper, Pulp and Coating Mills—Quality Guaranteed

We make a specialty of Fine Wires for Magazine and Book Papers

## CLASSIFIED INDEX TO ADVERTISEMENTS

PAPER DEALERS.		Page	PAPER STOCK (Cont'd.).		Page	SPlicing TISSUE.		Page
M. M. Elsh & Co.	35		Salomon Bros & Co.	56		Sergeant Co., E. M.	75	
R. F. Hammond	Front Cover		Train-Smith Co.	Front Cover		STEAM SPECIALTIES.		
Midwest Paper Co.	69					Crane Co.	56	
PAPER EXPORTERS.			PAPER TESTERS.			Open End Heater & Purifier Co.	5	
A. M. Capen's Sons, Inc.	76		Ashcroft Mfg. Co.	56		STITCHING MACHINERY.		
Hudson Trading Co.	3		Foreign Paper Mills, Inc.	3		Sarnia Machine Co.	—	
Interstate Pulp & Paper Co.	45		B. F. Perkins & Son, Inc.	11		SULPHITE PULP ("Kraft" Soda).	35	
Parsons Trading Co.	Front Cover		PAPER TUBE MACHINERY.			Dyden Pulp & Paper Co., Ltd.		
Parsons & Whittemore	41		Dietz Machine Works	10		SULPHITE BLEACHED AND UNBLEACHED.		
W. M. Pringle Co., Inc.	53		Griessinger Machine Works	70		J. Andersen & Co.	4 and 25	
Storm & Bull	—		PAPER WAXING MACHINERY.			The Borggaard Co., Inc.	5	
PAPER MANUFACTURERS.			Poldevin Machine Co.	63		Brown Company	33	
American Coating Mills	53		PERFORATING MACHINES.			Canadian Robert Dollar Co.	35	
Bayless Mfg Co.	4		Dietz Machine Works	10		Craig Becker Co., Inc.	35	
Brown Company	15		PERFORATED METAL.			Dyden Pulp & Paper Co.	61	
Collins Mfg Co.	2		Harrington & King Perforating Co.	63		Parsons Pulp & Lumber Co.	Front Cover	
Diamond State Fibre Co.	Front Cover		Hendrick Mfg. Co.	10		Prior & Pearce, Ltd.	4	
Eaton-Dikeman Co.	67		Charles Mundt & Sons	51		Pulp and Paper Trading Co.	6	
Fort Howard Paper Co.	47		Manhattan Perforated Metal Co.	—		Trass Gulf Sulphur Co.	70	
Franklin Paper Co.	—		PLUGS (Wood).			Union Sulphur Co.	9	
Hammermill Paper Co.	—		O. L. Bartlett	—		New England Lank & Tower Co.	61	
Howard Paper Co.	49		PULP PROCESS.			Stains Lumber Co.	53	
Missisquoi Pulp & Paper Co.	63		Castle, Gotthel & Overton	8		R. K. Bradley	68	
Mountain Mill Paper Co.	47		PULP STONES.			James W. Sewall	68	
Nuera Paper Company	12		International Pulp Stone Co.	Front Cover		TRANSMISSION MACHINERY.		
New York and Maryland Pulp & Paper Co.	7		Lombard & Co.	63		H. W. Caldwell & Sons Co.	57	
Poland Paper Co.	—		PULPWOOD.			Reeves, Pulley Co.	—	
Sherman Paper Co.	69		The Northern Wood Supply Co.	67		TURBINES.		
Stratford Paper Co.	71		PUMPS.			S. Morgan Smith Co.	8	
Wausau Sulphate Fibre Co.	53		Frederick Iron & Steel Co.	2		TWINES.		
PAPER AND PULP MACHINERY.			Havton Pump & Blower Co.	—		American Manufacturing Co.	47	
Bagley & Sewall Co.	—		PUMPS (Vacuum).			VALVES.		
Baker Mfg Corp.	74		The Nash Engineering Company	15		Crane Co.	56	
Beloit Iron Works	23		RAG CUTTERS.			Linkins Bros.	8	
Bird Machine Co.	29		B. F. Perkins & Son, Inc.	11		VENTILATING FANS.		
Black-Chawson Co.	—		Taylor-Shea & Co.	—		B. F. Perkins & Sons, Inc.	11	
Clark-Aiken Co.	11		REAM CUTTERS.			VEGETABLE PARCHMENT PAPERS.		
Frank J. Davis	65		Geo. P. McLaughlin Co.	—		Kidamazon Vegetable Parchment Co.	45	
Downingtown Mfg Co.	74		RECORDING INSTRUMENTS.			WAREHOUSE SERVICE.		
Glens Falls Machine Works	66		Bristol Company	69		Brown Wales Co.	—	
Improved Paper Machinery Co.	43		Easton Co., Inc.	—		WAXED PAPERS.		
M. W. Kellogg Co.	—		ROBIN SIZE.			Dragon Paper Mfg Co.	35	
Mills Machine Co.	65		Atul Mfg Co.	75		WOOD FLOUR.		
Sandusky Foundry & Machine Co.	49		ROTARY BLEACHING BOILERS.			Union Wood Flour Co.	56	
Sandy Hill Iron & Brass Co.	60		Biggs Boiler Works Co.	—		WOOD PULP IMPORTERS.		
Shawville Bros Machine Co.	67		RUBBER ROLLS.			American Wood Pulp Corp.	4	
Smith & Winchester Mfg Co.	74		American Winger Co.	6		J. Andersen & Co.	4 and 25	
Valley Iron Works Co.	—		SAVEALL.			Tr. L. Beebe & Co.	70	
Waterville Iron Works	2		Bird Machine Co.	29		The Borggaard Co., Inc.	—	
PAPER MILL AGENTS.			SCALES (Paper).			M. Gottesman & Co.	31	
Dillon & Barnes	69		Fred Baker	—		Hammond, R. F.	Front Cover	
Hill Company, Burton C.	12		E. J. Cady & Co.	3		E. J. Keller Co.	12	
McIver, Dana T.	3		Foreign Paper Mills, Inc.	—		Luerich Trading Co.	14 and Front Cover	
Melby, F. C.	1		SCREENS.			A. J. Pagel & Co., Inc.	19	
R. I. Stevens, Jr.	69		Bird Machine Co.	29		J. F. Patton & Co. Inc.	43	
PAPER MILL SUPPLIES			Central Mfg Co.	—		Scandinavian American Trading Co.	12	
Paper Makers Chemical Co.	3		Wm. A. Hudry & Sons Co.	49				
PAPER AND PULP MILL BROKERS			Union Screen Plate Co.	73				
Gibbs Brown Co.	66		SKYLIGHTS.					
PAPER STOCK.			E. Van Noorden & Co.	75				
Atterbury Bros	56		SLASHERS.					
Castle, Gotthel & Overton	75		Ryther & Pringle Co.	—				
Gambinsky Bros	76		SLITTERS AND REWINDERS.					
Hicks, Daniel M.	70		C. Benninghofen & Sons	69				
Francis Hughes Co.	70		Common Machine Works	69				
Mendelson Bros Paper Stock Co.	71		Dietz Machine Works	10				
Penn Paper & Stock Co.	69		Summit M. Laneston Co.	69				

## STRATFORD PAPER CO.

160 Cornelison Ave.  
Jersey City, N. J.

High Grade Fourdrinier Tissues in Stock for Immediate Delivery

Fitchburg, Mass.,  
U. S. A.

## UNION SCREEN PLATE COMPANY

Lennoxville, P. Q.  
CanadaUNION BRONZE SCREEN PLATES ROLLED BRASS  
(Best phosphorized Cast Metal) (Union Quality)

Old Plates RECLOSED and RECUT to accurate gauge

UNION BRONZE SCREWS for Screen Plates

UNION BRONZE SUCTION BOX PLATES

Immediate Delivery of the Largest Orders. Satisfaction Guaranteed

THE UNION-WITHAM SCREEN PLATE VAT AND FASTENERS

THE ORIGINAL

Over One Thousand in Successful Operation

THE BEST

Recommended by Screen Makers



# BAKER MANUFACTURING CORPORATION

Formerly Baker & Shevlin Co.

Manufacturers of

A general line of paper and pulp making machinery including:

Automatic Magazine Grinders (owners of all U. S. patents)

Bronze and White Metal Valves for Sulphite Mills

Bronze and White Metal Pipe and Fittings for Sulphite Mills

Centrifugal Screens—Horizontal and Vertical

Centrifugal Pumps

C. Bach & Wieg Barking Drum

Cylinder Moulds

Decker Machines or Pulp Thickeners

Feeney Automatic Stock Regulator

Kneaders

Monarch Diaphragm Screen

Paper Making Machines—Cylinder and Fourdrinier

Paper Machine Screens—Horizontal Rotary

Pulp Refiners

Ramsey Patent Grinder Valves

Sliver Screens

Wet Machines

Winder Shafts

Worm Washers

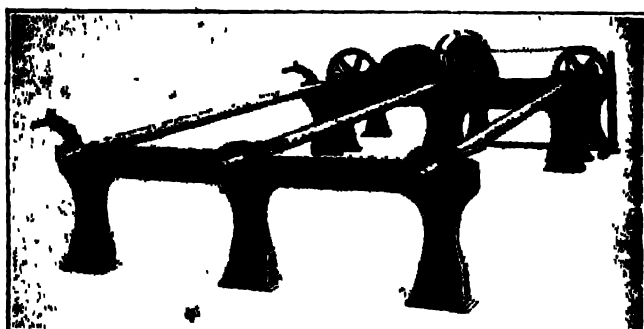
Worm Knotters

Baker Manufacturing Corporation

Saratoga Springs, N. Y.

## DOWNINGTOWN MANUFACTURING CO.

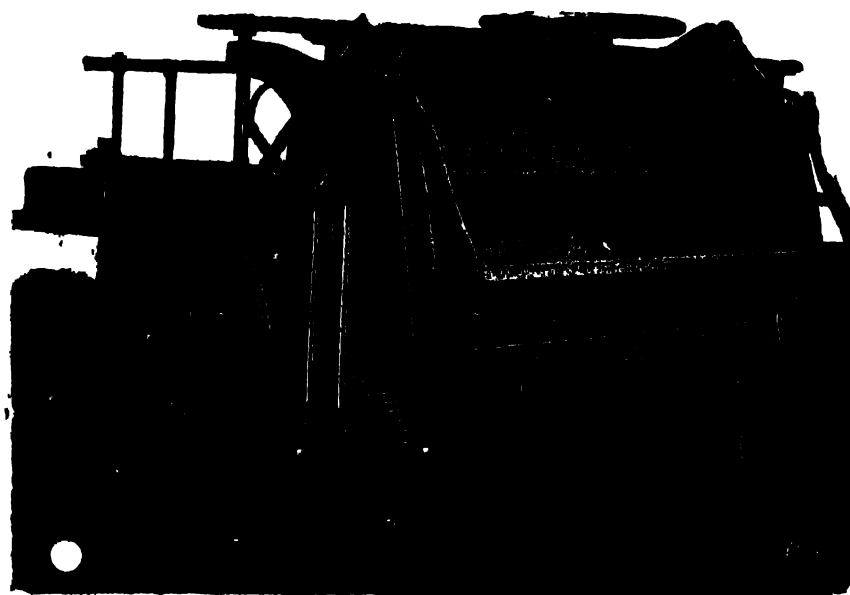
EAST DOWNINGTOWN, PA., U. S. A.



3 Shaft Compensating Winder

*We build all kinds of  
Paper Mill Equipment*

WRITE US FOR PRICES



## The Undercut Trimmer

The Paper Mill Cutter, combining the highest degree of accuracy, speed and simplicity for the most exact trimming.

The clamping power of the Undercut is not equalled by any other cutter, and assures absolute accuracy in trimming. The safety in operating an Undercut is a very important fact to be considered, as well as simplicity of design and construction carried out in the best manner and workmanship possible.

The speed of the Undercut is such that more cuts can be utilized in the working of our machine than in the high-speed cutters, which not only consume power, but wear out rapidly.

Our Power Back Gauge Drive enables the operator to handle material quickly, easily, and more in quantity than can be secured in the use of other machines.

For further and full information, call upon

**The Smith & Winchester Mfg. Co.**

Builders of High Grade Paper Mill Machinery and Paper Bag Machinery  
South Windham, Conn.

Gargoyle Lubricating Oils is both trivial in amount and important in results.

The slightly higher price-per-gallon is quickly wiped out by lower repair bills, and increased production-profit. If you want to save money, the best possible lubrication is the best possible way to insure the saving.

If you wish to introduce real money saving in your plant, we suggest that you get in touch with our nearest branch.

Stocks of Gargoyle Lubricating Oils, correct for every engine and machine need, are carried in principal cities throughout the country.

#### DOMESTIC BRANCHES:

New York  
(Main Office)  
Detroit  
Des Moines

Boston  
Pittsburgh  
Buffalo  
Dallas

Chicago  
Indianapolis  
Rochester  
Kansas City, Kan.

Philadelphia  
Minneapolis  
Albany

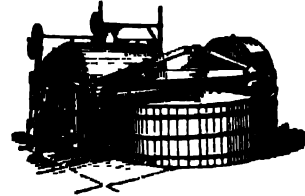


## Lubricating Oils

*A grade for each type of service*

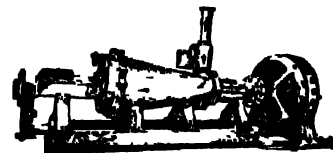
# VACUUM OIL COMPANY

### CORRECT LUBRICATION for these Important Machines



**Beaters**

Beater bearings, generally unnecessarily hot, will run cooler if the stock leakage is eliminated and oiling is regularly attended to. The regular use of **Gargoyle D. T. E. Oil Extra Heavy** overcomes beater lubrication difficulties.



**Jordans**

Because of the high speeds and heavy pressures which are always present, and the side pull on bearings when belt driven, it is necessary to use a heavy bodied oil. For this purpose we recommend **Gargoyle Etna Oil Heavy Medium**.

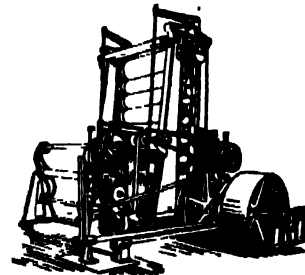
### Paper Machines



For bearings of the paper machine, subjected to induced heat from steam used for drying, an extra heavy bodied oil is required such as **Gargoyle**

### D. T. E. Oil Extra Heavy.

The rolls at the wet end subjected to moisture and heavy pressure demand a compounded oil which will resist the washing tendency and maintain a perfect oil film. We recommend **Gargoyle D. T. E. Oil Heavy X** for these specially trying conditions.



**Calenders**

Paper machine production is directly dependent upon uniform speed. Calender bearings are subjected to heavy pressures and high frictional heat. The regular application of **Gargoyle D. T. E. Oil Extra Heavy** insures uniform speed, and consequently minimizes "broke."

# Editorial

Vol. LXXIII New York, October 27, 1921 No. 17  
FIFTIETH YEAR

## Big Plans for Chicago Paper Week

The complete program for the Fall Business Conference of the American Paper and Pulp Association, with the sole exception of the individual speaker who will represent the Railway Executives Association at the Thursday joint luncheon with the National Paper Trade Association, has been completed.

A unique last minute feature has been arranged in the holding of a motion picture exhibition of films of the paper industry for 4 o'clock the afternoon of Thursday, November 3. This exhibition has been arranged as a result of the interest shown by universities and other educational groups in the motion pictures already existing in the paper industry. A big Chicago industrial motion picture manufacturer, Douglas D. Rothaker, has consented to handle the projection of the existing films and also show some films typical of those used in other industries.

The motion picture exhibition will show portions of various films made for various paper companies as types of what has been done by the industry along these lines. Portions only of the various films will be shown, as there are so many that there would not be time for all, and much of the material is duplicated.

The third speaker to represent the manufacturer at the forenoon session has been announced, in Norman W. Wilson of the Hammermill Company. The three manufacturers to take part in this symposium, therefore, are in addition to Mr. Wilson, George W. Sisson, Jr., and J. H. Stannard, whose acceptance of invitations to speak had been previously announced. The two merchants will be President Edward F. Herrlinger of the National Paper Trade Association and O. A. Miller of Columbus. The representative of the consumers will be Thomas E. Donnelley, a prominent Chicago publisher and one of the best-known publishers of the country.

The forenoon session, after these six speakers, will be devoted to discussion of the conditions in the industry. The luncheon at 1:30 will be followed by discussions of the relationship of the paper industry to American business in general. The speakers already announced, in addition to a speaker for the railroad executives, will be President Joseph H. DeForest of the Chamber of Commerce of the United States.

A meeting of the Book Paper Converters' Division for 2:00 P. M. Tuesday, November 1, has been added to the meetings already programmed of other associations in the industry. The Board Section meeting scheduled tentatively for Wednesday morning has been postponed.

With these exceptions the program tentatively announced earlier in the month will be carried through, regardless of the threats of a railroad strike. Dr. Baker has said from the start that he doubted if the railroad unions would run so counter to public sentiment as actually to call a strike, and that even if they did so the railroads would be able to operate trains on the trunk lines.

"I don't believe in postponements where they can be avoided," he said, "so we have gone ahead without the slightest change in our plans."

One unique way of calling the attention of the industry to the convention was the use of orange gummed stickers in all mail of the association for the past month. A supply of these was also sent to all members with an envelope suggesting that they aid in promoting a big attendance. These stickers appear to have been largely used.

That the industry is not fearful of a serious situation resulting from the strike threat is evidenced from the number of advance reservations made for the Thursday luncheon. The reservations are in numbers sufficient to indicate that the attendance will be larger than last year.

Men in every branch of the paper and pulp industry cannot fail to profit by being present in Chicago during paper week.

## Co-operation in Foreign Trade

The business of the United States in foreign countries is still approximately fifty per cent greater than it was before the war. Lower prices have much to do with the general apparent depression compared with our foreign trade during the war. In those days we had foreign trade pressed upon us. Other countries found it necessary to force their orders upon us and we took the orders and filled them any old way. Confirmed bankers' letters of credit were surely worth-while documents. Most of those attractive assurances of payment stopped when the war stopped. Many of the shipments to foreign ports stopped also.

Those manufacturers who still have a good foreign business are the ones who filled their orders with a degree of conscientiousness. Those who lost their business were the ones who filled the orders with any old thing and raced to the bank with the invoices and bills of lading, cashed in and waited for another victim. Victims fell and fell, but when the war ended they turned to responsible and honorable firms for their supplies. The successful American manufacturers are those who worked with an eye to the future and builded up a foreign business based upon honest dealing and fair treatment. They were the ones who adjusted claims promptly and gave their foreign customers the consideration to which a good customer is usually entitled.

All the American manufacturer has to do is to give honest weight and honest measure and keep his qualities up to a given or expected standard and pack the goods without filling the contents of the cases with nails.

Foreign business, now and from now on, is the learning of just what the foreign customers want and complying with their wants. Up to the present time we have no co-operation in these matters, that is, to any great extent. Our consular service has no appropriations for the purpose of acquiring information relative to the needs of foreign buyers. The United States Consuls in foreign countries have no means of gathering information for the American manufacturers. What is needed by the Department of Domestic and Foreign Trade are men who know how to go into foreign markets and gather detailed information as to requirements. Men are needed who have an aptitude for the work. Sending excursionists and sight-seeing delegations under the nom de plumes of trade investigators and foreign trade investigators doesn't result in information that is practical to the manufacturer. What the American manufacturer wants to know is what kind of goods are used and what prices are paid and how he should pack the

goods. He wants to know how to meet English and German competition and, above all, he wants to know how to overcome the restrictions Great Britain has put upon other nations, including ourselves, in order to make our foreign trade an entanglement of detail. He wants to know why everything he sends out has to be marked "Made in the U. S. A." He wants to know whether he has to put this on goods when no English words appear on the shipment.

If all manufacturers would appeal to their representatives in Washington through their various manufacturers' associations it might be possible to have appropriations made that would enable our consular service abroad to gather the vital detailed information.

If every manufacturer would demand action in the matter it wouldn't be long until all manufacturers would have a good working knowledge of foreign trade requirements and that is the co-operation which is needed.

Write to-day to your representative in Washington and ask him to support a movement for appropriations which will enable our Consular Service abroad to gather foreign trade information.

### U. S. A Big Paper Importer

Two-thirds of the news print used in the United States in 1920 was made from wood grown on foreign soil. Out of more than 4,500,000 tons of wood pulp consumed for all purposes 35 per cent came from foreign markets. Over \$191,000,000 was paid for the pulpwood, wood pulp and paper imported. To this extent the United States has become dependent upon markets outside its control. This country can no longer draw its supply from our rapidly disappearing eastern forests. As a result primarily of forest depletion the cost of pulpwood rose more than 110 per cent in the five-year period, 1916-1920, and of wood pulp 35 per cent since 1918. These and other facts are presented in a bulletin, "Pulpwood Consumption and Wood Pulp Production, 1920," prepared by the Forest Service, United States Department of Agriculture, in co-operation with the American Pulp and Paper Association of New York.

Prior to 1909 practically all the paper consumed in this country was manufactured here. This is no longer true. The United States is now becoming more and more an important Nation, and the papermaking industry has grown until its capitalization approaches the billion-dollar mark.

"The trouble in brief," says the bulletin, "is that we have mills without forests in the East and forests without mills in the West." In New England and New York, where the forests have been largely worked out, there is the heaviest concentration of mills. In Alaska, where there is enough spruce and hemlock to supply present American news print requirements indefinitely, there is only one mill. The industry has remained stationary in the East while the lumber industry has moved West.

"In Minnesota, for instance, where domestic spruce forms 95 per cent of the consumption, pulpwood costs \$10.40 per ton less than in New York. If New York pulp mills could have bought their spruce from native forests at a saving of \$10 a cord, the savings on their imports alone would have been \$5,000,000 during the year 1920."

Expensive Eastern mills cannot be moved West nor can the great forests of Alaska and the Pacific slope be set down in New England and New York. Nor can the United States count upon reducing the amount of pulpwood necessary to meet present requirements. Further, Canada cannot be depended upon indefinitely as a source of supply, for Canadian forests are no more limitless than those of the United States.

The remedy is twofold. locate more mills on the Pacific slope and reforest the East.

"Reforestation will take not only skill, energy and money," say the foresters, "but most serious of all, many years must elapse before the East can be put on a thoroughly self-supporting basis. Yet there is no choice left to us. The work must be undertaken. We must have pulp and for every year of delay we must pay increasingly heavy penalties for neglecting to restore the forests as fast as the wood is consumed."

As the result of unregulated lumbering, it is pointed out, followed by fire, more than 60,000,000 acres of potential forest lands, most accessible to Eastern and Lake State mills, are now producing nothing or supporting a growth of little use except for firewood. If they were producing only a third of a cord of pulpwood an acre, every year, the total yield would be 20,000,000 cords or approximately twice the amount needed to supply the entire American consumption at the present time.

Wood pulp production in 1920 is placed at 3,821,704 tons and the average value at the mill at \$72.20 per ton, an increase of \$19.52 per ton, or 37 per cent over 1918 figures.

### Cost Association Resolutions

The following resolution was passed at the sixth, semi-annual convention of the Cost Association of the Paper Industry, held at the Drake Hotel, Chicago, October 6 and 7, 1921.

Resolved That the development of the work of the Cost Association of the Paper Industry to its present effectiveness has been possible in a very large degree to the unselfish efforts of such men as our former president, Mr. D. E. Burchell and our former first vice-president, Mr. B. E. Hutchinson, and that a copy of this resolution be sent to Mr. Burchell and Mr. Hutchinson by our secretary treasurer with an expression of our thorough appreciation of their services to the association and our deep regret that our close association with them in this work must end, also our most sincere wishes for their success in their present connections.

Resolved That it is the sense of those present at this sixth convention of the Cost Association that the policy outlined by the Executive Committee for the advancement of the association work be heartily endorsed.

That the Executive Committee be authorized and instructed to proceed toward the development of standardization in the fundamental principles and factors underlying cost accounting procedure in the paper industry.

The fundamentals so far submitted by the Executive Committee be approved, adopted and urged upon all paper manufacturers for use in the mills.

That all certified public accountants be requested to co-operate with us in connection with all work conducted by them in the paper industry.

That paper manufacturers contemplating the employment of public accountants be requested to insist upon such co-operation on the part of the accountant they employ, and, that the secretaries of the various associations affiliated with the American Paper and Pulp Association be requested to urge upon their members the acceptance of this policy.

Resolved That the Cost Association of the Paper Industry greatly appreciates the co-operation of Commissioner Nelson B. Gaskill of the Federal Trade Commission as demonstrated by his letter read by our secretary at this convention and that the secretary be instructed to write Mr. Gaskill expressing this appreciation and assuring him that it is the desire and intention of the association in urging standardization in cost accounting procedure to obtain for the paper industry the greatest benefits from such a policy while at the same time to avoid entirely the phases of the question which are clearly in conflict with existing law.

Lockwood's Directory of the Paper and Allied Trades for 1922 should be on the desk of every paper man.

# RECENT LITERATURE ON SODA AND SULPHATE PULPS

A READING LIST COMPILED BY CLARENCE J. WEST, NATIONAL RESEARCH COUNCIL

(Technical Association of the Pulp and Paper Industry; Committee on Bibliography, Contribution No. 35)

(Continued from last week)

## Muerbe, E.

Evaporation of sulphite and sulphate liquor

Svensk Pappers-Tidning 23, 72 (1920), C A 14, 285b.

Device for rapid evaporation sucks the gases from the fire-box by a blower and forces them through a perforated pipe into a chamber into which the liquor is pumped as a fine spray. From 80 to 90 per cent of the water is lost without expense and the evaporation is continued in an ordinary evaporating pan

## Müller, M.

Utilization of spent liquor from straw and wood pulp manufacture.

Wochbl Papierfabr. 50, 2749-2750 (1919), C A 14, 3792.

## Müller, Max.

Method for the preparation of soda pulp from all kinds of plant materials.

German patent 323,743 Papierfabr 18, no 33, 616 (1920); Wochbl. Papierfabr 51, no. 36, 2537-2538 (1920)

The soda or sulphate cook is treated with the alkali or alkaline earth salts of the lower acids of the aliphatic series. One may also add the acids themselves, thereby causing the formation of the salts. Specially suitable is the addition of crude gray lime acetate, that is, calcium acetate containing calcium phenolate. Mineral oils may also be added.

## Müller, Max.

Method for the preparation of pure soda pulp from wood, straw, esparto, reed, bamboo, manila, and other plant materials through double digestion with alkali and acid

German patent 323,744. Aug. 21, 1919. Wochbl. Papierfabr 51, no. 38, 2676-7 (1920), Papierfabr 18, no. 35, 649 (1920)

The pulp prepared by cooking with alkalis is further treated with inorganic or organic acids or their salts. The materials extracted may be used for sizing paper or as an adhesive

## Müller, Max.

Utilization of waste liquor

Papier-Ztg 38, 1925, 2071 (1913), Wochbl. Papierfabr 44, 2404 (1913)

Discussion of Rinman's process

## Muntzing, Alvar

Observation on pulp production

Papierfabr 14, no 12, 195-197 (1916)

## Nilsen, S.

Comparative tests of various methods of analysis of sulphate liquor.

Papierfabr 11, 1441-1445 (1913)

In the analysis of sulphate liquors from straw cooking the method of Lunge and Lohofer (Z angew Chem 1901, 1125) is preferable, since Kirchner's method gives high results for sodium carbonate when much sodium silicate is present. For wood liquor, on the other hand, Kirchner's method is considered to supply nearly correct results

## Nielsen, A. E.

Treating waste gases and vapors from soda-cellulose factories.

U. S. patent 1,345,220. June 29, 1920. Canadian patent 197,280 Feb 17, 1920 C A 14, 1041, 2553

The waste vapors are absorbed by "greenlime." Valuable products may be recovered from the absorption product.

## Olsson, E.

Sulphate pulp.

U. S. patent 1,322,043. Nov 18, 1919. Canadian patent

202,467. Aug. 3, 1920. C A 14, 346, 2986.

In the recovery process in the manufacture of sulphate pulp, sodium acid sulphate is added to the black liquor before evaporation. The free acid in the niter cake converts part of the sodium carbonate in the liquor into sodium sulphate.

## Olsson, O.

Obtaining volatile products from sulphite waste lyes.

Swedish patent 41,755 Dec. 27, 1916.

The sulphate waste lyes are concentrated in a multiple apparatus and the uncondensed vapors are removed from suitable points in the evaporator and led to a condenser. The condensate is further treated to extract valuable products.

## Pasche, Fritz.

Straw lignin.

Wochbl. Papierfabr 51, no. 16, 1139-1141 (1920).

Straw, on a laboratory scale, may be digested with 5 per cent soda solution at 150 degrees, with a yield of 50 per cent of pulp

## Payne, James H.

Recovery of soda in the soda pulp mill

Paper 17, no 10, 13-16 (Nov. 17, 1915).

## Practical experiments in making paper yarn.

Paper Trade J. 65, no 10, 30 (1917).

The best material for paper yarns is soda kraft paper. Details for cooking the wood pulp and rags are given.

## Problems of the soda pulp industry.

Papier-Ztg 38, 1102, 1143, 1255 (1913), Wochbl. Papierfabr 44, 1892, 1963 (1913)

## Pulp by the sulphate soda process

Paper 6, no 11, 16 (Feb 28, 1912)

## Purification of sulphate pulp.

World's Paper Trade Rev 60, no 7, 328 (Aug. 15, 1913)

## Reed, H. C.

Oxalic acid from waste liquors of cellulose manufacture. U S patent 1,310,713 July 22, 1919 C A 13, 2443

The liquor is evaporated to a dry or semi-dry condition, mixed with about 4 times its weight of sodium or potassium hydroxide and the mixture heated in thin layers to 250 degrees for about 6 hours. Upon extracting with water, sodium oxalate is found in the residue. This is extracted with an additional quantity of water, changed into the calcium salt and then into the free acid

## Refsaas, E.

Points in the sulphate process.

Paper 12, no. 2, 32 (June 25, 1913).

## Rheinhard, —.

Filter for sulphate process fumes

Paper Maker 50, no. 2, 179 (Aug., 1915).

## Richter, Erich.

Soda process for straw and esparto.

Paper 12, no 12, 19; no 13, 17 (1913)

## Riis, Erling.

Sulphite and sulphate hazards.

Pulp Paper Mag Can 17, 928-930 (Oct 30, 1919) Proc Nat Safety Council, 8th Annual Safety Congress, 966-979

## Rinman, E. L.

Utilization of sulphate and sulphite waste liquors.

(Continued on page 44)

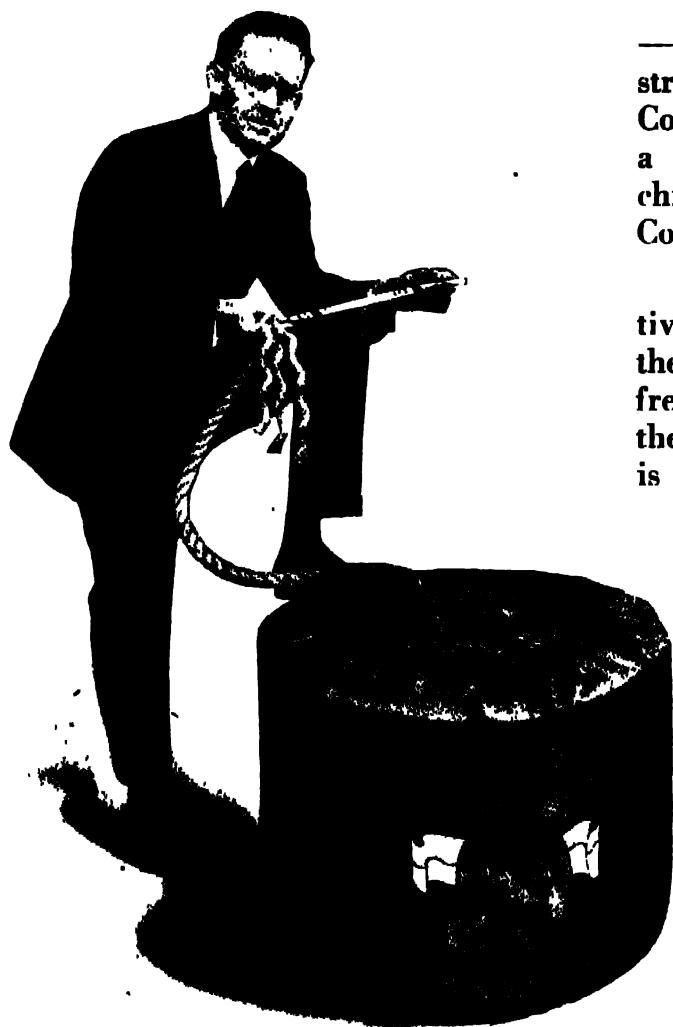
# COLUMBIAN *Tape-Marked*

## This Red, White and Blue *Tape-Marker*

—positively identifies and guarantees the strength, durability and service of every foot of Columbian *Tape-Marked* Pure Manila Rope—a modern product, made with modern machinery and methods in the most up to date Cordage plant in the country.

From the time that Columbian representatives select the fibre in the Philippines until the completed rope is coiled and ready to ship, frequent and rigid inspections are made during the various stages of manufacture. The result is a high grade rope that we are glad to back up with an absolute guarantee.

Buy Columbian Red, White and Blue  
*Tape-Marked* Rope.



Columbian Rope Company

373-90 Genesee Street,

Auburn

"The Cordage City"

N. Y.

BRANCHES: New York Chicago  
Baltimore Houston

Boston

# Pure— Manila ROPE

## RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Continued from page 42)

- Papier-Ztg** 40, 559-560, 574-575 (1915); **Pulp Paper Mag.** Can. 13, no. 12, 337-339 (June 15, 1915).
- The general procedure of the Rinman recovery process is to add soda to the black liquor, causticize with lime, filter and concentrate to 35 degrees Be. To the thick liquor are added  $\frac{1}{4}$  mol. of lime  $[\text{Ca}(\text{OH})_2]$ , calculated on the sodium oxide content of the original black liquor; the solution is concentrated still further and finally subjected to a dry distillation. Presence of sodium hydroxide induces high yields of methyl alcohol from the constituents containing methoxyl of the black liquor and presence of lime induces high yields of acetone.
- Rinman, E. L., and Langlet, A.**  
By-products of the black liquor of soda pulp manufacture  
**Papier**, 12 no. 8, 212-215 (1914).
- Ruths, J. A.**  
Short time digesting in sulphite and sulphate digesters.  
U S patent 1,368,577 Feb 15, 1921 British patent 144,084 May 29, 1919. C A 14, 2986.  
The preliminary steaming operation and the beginning of the digesting proper are done by steam drawn from a steam-accumulator, the completion of the operation being effected by steam of higher pressure.
- Schacht, Willi.**  
Method for the dry distillation of concentrated waste liquors  
**Papier-Ztg.** 43, 434, 458 (1918); **Z angew Chem.** 31, 56 (1918).
- Schacht, Willi.**  
Method for utilizing the evaporated pulp liquors by dry distillation.  
German patent 301,684 Aug 27, 1916.  
One hundred parts of the pitch gave 2 to 4 kilos of oil, which contained 25 per cent light oil of high calorific value.
- Schacht, Willi.**  
Straw pulp manufacture  
**Wochbl. Papierfabr.** 45, no. 25, 2265 (1914)
- Schroder, Hugo.**  
Apparatus for the recovery of soda in soda pulp factories  
**Chem. Apparatur** 1, 161-168 (1914).
- Schwalbe, Carl G.**  
Distinguishing between sulphate and sulphite cellulose in paper.  
**Wochbl. Papierfabr.** 44, 2196-2198  
The finely divided paper is extracted with alcohol and ether and dried. It is then heated with 0.5 normal ferric chloride solution on a water bath for about 30 minutes, filtered, washed with warm water and warmed on the water bath for 5 to 10 minutes with 1 per cent sulphuric acid and 4 to 8 drops of 2 per cent ferrocyanide solution. The sulphite fibers become colored deep green or blue while the soda or sulphate fibers are colored only a faint yellow or brownish green.
- Schwalbe, Carl G.**  
Method for the removal of the odorous constituents from the waste gases of the soda pulp factory  
German patent 319,594 July 31, 1917. **Wochbl. Papierfabr.** 51, no. 12, 867. **Papierfabr** 18, no. 12-13, 227 (1920)  
The gases are mixed with chlorine and passed over wood, sawdust, etc., which acts as a catalyst for the oxidizing action of the chlorine.
- Schwalbe, Carl G.**  
Removal of offensive gases in the sulphate pulp mill.  
**Zellstoff u. Papier** 1, no. 3, 69-72 (1921); **Paper** 28, no. 24, 13-15 (1921).
- Shafor, R. W.**  
Continuous causticizing.  
**Paper Trade J.** 61, no. 19, 40 (Aug. 26, 1915).
- Spence, George K.**  
Use of sulphur in cooking soda pulp.  
**Technical Assoc. Papers** 3, 14-16 (1920).
- Stage, O. G.**  
Digesting cellulosic materials with sulphate liquor.  
U S. patent 1,279,604 Sept 24, 1918. C. A. 12, 2686  
After treating the cellulosic material with the liquor in the digester, part of the black liquor is withdrawn, weak liquor is introduced into the digester to replace the liquor withdrawn, the pulp in the digester is washed by the liquor thus weakened and the liquors are all preserved under digester heat and pressure to maintain them in condition for subsequent burning without loss.
- Statham, N.**  
Causticized organic material suitable for the production of acetone.  
U S. patent 1,298,594. Mar 25, 1919 C A 13, 1715.  
A strong porous material weighing not over 40 pounds per cubic foot and suitable for dry distillation for the production of acetone and other products by dry distillation with steam, is formed by concentrating waste soda pulp liquor with addition of soda and mixing the concentrated material with quicklime.
- Soda Pulp as spinning paper.**  
**Paper-Ztg** 43, no. 78, 1810 (1918)
- Steffansson, H. B.**  
Development of kraft in the United States  
**Paper Trade J.** 58, no. 3, 38 (Jan 15, 1914). **Paper Maker** 47, no. 2, 274 (Feb, 1914)
- Stutzer, A.**  
Sulphate cellulose waste lye in its relation to agriculture  
**Paper Maker** 46, no. 1, 104 (July, 1913).
- Sulphate cellulose process**  
**Paper Maker** 46, no. 3, 384 (Sept, 1913)
- Sulphate Pulp for Chinese tissue papers**  
**Papierfabr** 12, no. 31, 896-897 (1914)  
Suitable product is prepared by boiling with alkali of 22 degrees Be for 6 hours, the highest pressure of 8 atmospheres should be maintained not over 2 hours b
- Surface, Henry E.**  
Effects of varying certain cooking conditions in producing soda pulp from aspen  
U S Dept. of Agriculture, Bulletin no 80 (Professional Paper) 63 p 23 cm Washington Government printing office, 1914. Bibliography, 61-63  
Reprinted in **Pulp Paper Mag** Can 12, no 19, 564-8, n. 20, 591-605 (Oct. 1, 15, 1914)
- Surface, Henry E., and Cooper, Robert E.**  
Suitability of longleaf pine for paper pulp.  
U. S. Dept of Agriculture, Bulletin no 72. 26 p. 23 cm. Washington, Government printing office, 1914
- Sutermeister, E.**  
Consumption of caustic soda in cooking wood.  
**Paper Trade J.** 55, no. 20, 48 (Nov 14, 1912); 8th Intern. Congr Appl Chem : **Papierfabr** 10, no 43, 1226-1228 (Oct. 25, 1912).
- Sutermeister, E.**  
Soda pulp manufacture.  
**Pulp Paper Mag** Can 17, 215-218, 243-246, 289-292, 309-314, 327-330, 351-354, 375-378 (1919); C. A. 13, 1390. Re-

(Continued on page 46)

## Send in Your Orders for Technical Association Papers

The papers and discussions on pulp and paper manufacture, machinery and apparatus given before the Technical Association of the Pulp and Paper Industry at the Fall Meeting in 1920, are now available in bound form as "Technical Association Papers, Series III."

The contents include the following titles:

- Tests for Unbleached Sulphite and Sulphate Fibers.
- Standard Specifications for Cement and Lime Paper Bags.
- Report of Sulphate Pulp Committee.
- Use of Sulphur in Soda Pulp Cooking.
- Substitutes for Alum and Rosin in Papermaking.
- Automatic Cooking Control for Chemical Pulp
- Automatic Mixing System for Paper Stock.
- A New Felt Cleaning Device.
- Fireproof Hood for Paper Machines.
- The Measurement of Pulpwood

The price of this volume is \$2. Send orders to Technical Association of the Pulp and Paper Industry, 18 East Forty-first Street, New York.

### TECHNICAL ASSOCIATION PAPERS, SERIES IV.

The bound volume of Proceedings for 1921 contains a valuable collection of papers, essays, reports and discussions on all phases of paper manufacture, including engineering articles dealing with problem of Light, Power and Heat.

An idea of the contents of this valuable series of papers may be gained from the following selected titles:

- How to Increase the Efficiency of Water Power Plants.
- Strength Testing of Soda Pulp
- Steam Economy in Operation of Paper Machines
- Burning of Pulverized Fuel in Paper Mill Power Plants.
- Shortening Cooking Time by Preliminary Impregnation.
- Measuring Moisture of Chips.
- Economies of Paper Mill Electrification.
- Drying of Paper
- Weighing Soft Stock, Chips and Acid
- The Effect of Variables on Bleaching Efficiency.
- Briner Economizer for Ventilation of Machine Rooms.
- Rinman Sulphate Process.
- Manufacture of Groundwood by the Hall Process.
- Evaluation of Lime by Causticizing Test.
- Moisture Content Indicator for Paper.
- Casein Used in Coating Paper.
- Analytical and Testing Methods.
- Moisture Testing of Woodpulp.
- Analysis of Sulphite Cooking Acid.
- Control Analyses of Sulphite Cooking Acid

The price of this volume is \$3. Copies will be mailed postpaid on receipt of order.

TECHNICAL ASSOCIATION OF THE PULP AND  
PAPER INDUSTRY

18 East Forty-first Street, New York

## RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Concluded from page 44)

printed under same title; Ste. Anne de Bellevue, P. Q., Garden City Press, 1919. 80 p 22.5 cm.

**Sutermeister, E.**

Soda process for cellulose manufacture.

Paper 9, no. 2, 15-16 (Sept. 25, 1912).

**Technique of soda lye manufacture.**

Pulp Paper Mag Can. 13, no. 8, 240-241 (Apr. 15, 1915).

**Textor, Clinton K.**

Alkali recovery in the sulphate process

Paper Trade J 71, no. 21, 70, 72, 74 (Nov. 18, 1920).

**Theory of the preparation and recovery of soda liquors.**

Papeterie 42, 107-111, 151-156, 208-211 (Feb. 10-Mar 10, 1920), Pulp Paper Mag Can 18, no. 40, 1019-1023 (Sept 30, 1920).

**Thickens, John H.**

New soda process for wood

Paper 16, no. 10, 14 (May 19, 1915)

**Trostel, George M.**

Black ash leaching.

Paper 26, no. 7, 390, 392 (Apr 21, 1920)

**Veitch, F. P., and Merrill, J. L.**

Pulp and other products from wood waste rich in rosin

Paper 10, no. 8 (Feb 5, 1913); Papierfabr 11, 606-607 (1913).

**Wells, S. D.**

Action of moisture in cooking soda pulp

J. Soc Chem Ind. 35, no. 17, 886-887 (1916); Paper Maker 52, no. 4, 346 (Oct, 1916), J Ind Eng Chem 8, 601-602 (July, 1916)

**Waite, C. N.**

Wood pulp

U. S. patent 1,212,158 Jan 9, 1917

Wood pulp is prepared by digesting the raw material in a sodium hydroxide solution containing about 0.25 per cent of sodium sulphide. The latter acts to prevent the formation of oxycellulose during the digestion

**Wells, Sidney D.**

Book papers from Southern pines and gums

Paper Trade J 71, no. 22, 34-42 (1920), Paper 27, no. 1, 23 (Sept. 8, 1920); no. 12, 16-21 (Nov. 24, 1920)

Under carefully regulated conditions, loblolly pine and red gum can be reduced by the sulphate process, with a high recovery of soda, to pulps which bleach easily

**Wells, Sydney D.**

Experiments on the conversion of longleaf pine to paper pulp by the soda and sulphate processes

Paper 13, no. 2, 15 (1913), Pulp Paper Mag Can 11, 620-630 (1913)

Longleaf pine is well adapted for the manufacture of natural color kraft pulps and papers. The sulphate process, when applied to this wood, affords pulps of better quality and higher yields than the soda process. Kraft paper can be made from longleaf pine equal to or superior in quality to the imported or domestic kraft now procurable

**Wells, Sydney D.**

Experimental studies on soda pulp

Paper 17, no. 4, 14 (Oct 6, 1915)

**White, Alfred H., and Rue, John D.**

Recovery products of black liquor

Met Chem Eng 16, 182-186 (1917); Paper 19, no. 23, 56-64 (1917).

Laboratory and mill tests show that concentrated black liquor from the soda process can be destructively distilled to yield 69 gallons of methyl alcohol and acetone per cord of the origi-

inal wood. There is no difference in the yields between a hard wood, such as beech, and a soft wood, like bass. Very little change in equipment of the present recovery process is necessary and loss of soda up the stack is eliminated. The net gain from a by-product plant is estimated as 1.86 per cord of wood cooked. Criticised by Lawrence, Met. Chem. Eng., 16, 416-417.

**Wilen, K. G.**

Testing of "kraft" pulp for strength.

Pulp Paper Mag Can. 18, 1181-1184 (1920); C. A. 15, 313.

Describes the method of beating the pulp and forming it into a sheet, which, when thoroughly dry, is tested on the Mullen tester. The average Mullen tester multiplied by 100 and divided by the ream weight is the expression for the strength of the pulp

**Woodhead, R.**

Treating waste liquor from soda or sulphate pulp mills

Canadian patent 153,361 Jan 27, 1914

The waste liquors are first distilled with the aid of steam, or a furnace or waste heat from any boiler or machine, and the oils and organic matters therefrom condensed

**Ziegelmeyer, C.**

Soda wood pulp by Ungerer's process.

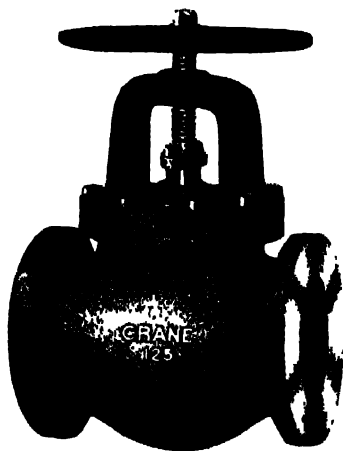
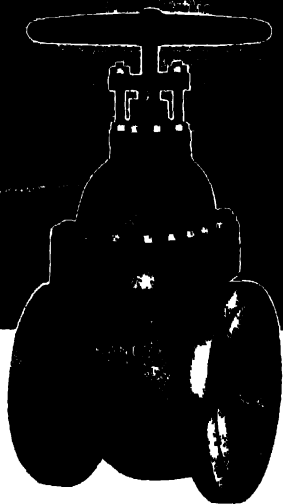
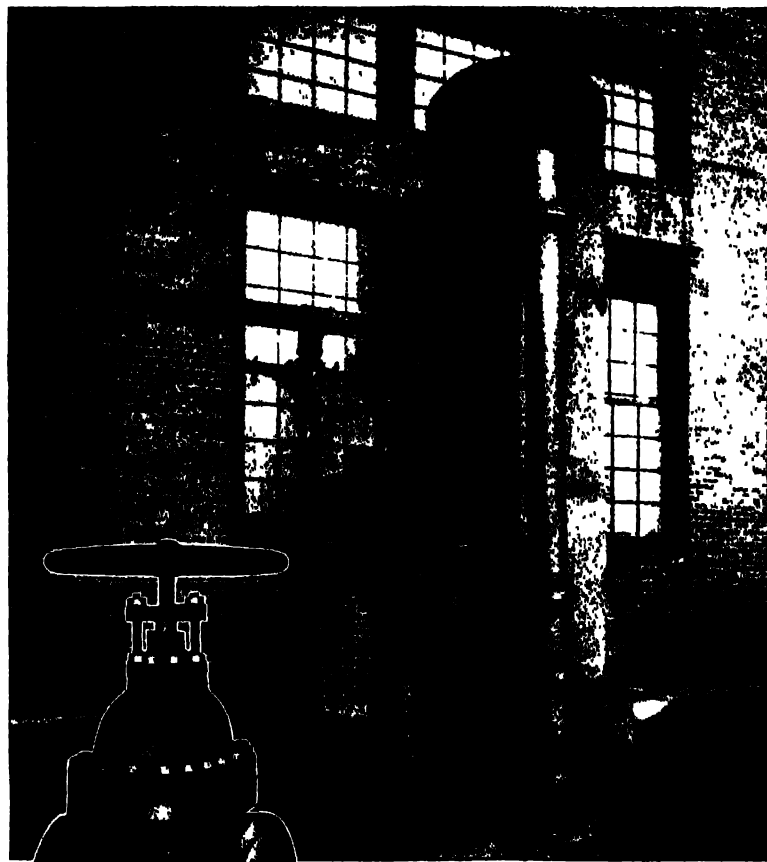
Papier-Ztg. 42, 1855-1856 (1918), C. A. 12, 2438

In this process the digestion of the wood by the soda or sulphate process is carried out fractionally by the counter-current principle. The pulp can be bleached with 1 to 2 per cent of bleaching powder

**Folding Box Cost Men to Meet at Buffalo**

Members of the Folding Box Manufacturers' National Association are interesting themselves in the forthcoming Buffalo meeting of the Cost Division of the industry realizing that the result of their deliberations of this meeting will enable them to correct any inaccuracies in the cost accounting methods and provide the means for setting up accurate budgets for 1922 before the first of the year. Questionnaires and forms for assembling the data are now in the hands of the members. The data will be analyzed and tabulated by the Stevenson Corporation, the cost engineers for the association and the Cost Division and presented for discussion at this meeting of the cost accountants and auditors of the industry. This meeting will be held Monday and Tuesday, November 28 and 29, at the Hotel Iroquois, Buffalo. It will be open to all cost accountants of the industry, whether identified with member or non-member concerns. Non-member representatives are privileged to attend the meeting and are invited to bring their own cost data for comparison with that which will be presented. In this way it is hoped to arouse general interest in the subject on the part of all folding box manufacturers and bring about a recognition of the vital necessity of adopting modern cost accounting principles throughout the industry.

The Cost Division was formed in Cincinnati during May this year. It has taken over the work formerly prosecuted under the direction of the Joint Cost Committee, which latter had completed its duties and turned over all future cost activities to the Cost Division, which is a permanent body. The association is represented on the Board of Directors of the Cost Division by R. G. Bishop, of Sefton Manufacturing Corporation, Chicago; E. G. Clerke, of the Richardson Company, Lockland, Ohio, and R. L. Page, of Downingtown Paper Box Company, East Downingtown, Pa. H. I. Swift, of the W. F. Powers Company, New York, is president, and H. A. Dickie, by virtue of his office as secretary of the association, acts as secretary of the Cost Division, with headquarters at 8 West 40th street, New York.



We are manufacturers of about 20,000 articles, including valves, pipe fittings, and steam specialties, made of brass, iron, ferrosteel, cast steel and forged steel, in all sizes, for all pressures and all purposes, and are distributors of pipe, heating and plumbing materials

A piping system that resists the destructive action of high temperatures must be constructed of materials of adequate strength and reliability.

## CRANE

### Valves and Fittings

are designed in accordance with the most advanced engineering practice.

There is a size for every purpose, a weight for every pressure, and a variety that meets all conditions of power plant operation.

#### SALES OFFICES, WAREHOUSES AND SHOWROOMS:

BOSTON  
SPRINGFIELD  
HARTFORD  
BRIDGEPORT  
ROCHESTER  
NEW YORK  
HARLEM  
ALBANY  
BROOKLYN  
PHILADELPHIA  
READING

ATLANTIC CITY  
NEWARK  
CAMDEN  
BALTIMORE  
WASHINGTON  
SYRACUSE  
BUFFALO  
SAVANNAH  
ATLANTA  
KNOXVILLE  
BIRMINGHAM

MEMPHIS  
LITTLE ROCK  
MUSKOGEE  
TULSA  
OKLAHOMA CITY  
WICHITA  
ST. LOUIS  
KANSAS CITY  
TERRE HAUTE  
CINCINNATI

**CRANE  
LIMITED**

MONTREAL TORONTO VANCOUVER WINNIPEG  
CALGARY REGINA HALIFAX OTTAWA

FOUNDED BY R. Y. CRANE, 1888

**CRANE CO.**  
836 SO. MICHIGAN AVE.  
CHICAGO

#### WORKS: CHICAGO AND BRIDGEPORT

INDIANAPOLIS  
DETROIT  
CHICAGO  
ROCKFORD  
OSHKOSH  
GRAND RAPIDS  
DAVENPORT  
DES MOINES  
OMAHA  
SIOUX CITY  
MANKATO

ST. PAUL  
MINNEAPOLIS  
WINONA  
DULUTH  
FARGO  
WATERTOWN  
AMERDEEN  
GREAT FALLS  
BILLINGS  
SPOKANE

SEATTLE  
TACOMA  
PORTLAND  
POCATELLO  
SALT LAKE CITY  
OGDEN  
RENO  
SACRAMENTO  
OAKLAND  
SAN FRANCISCO  
LOS ANGELES

**CRANE-BENNETT, LTD.**  
LONDON ENG

# SELECTING POWER PLANT MACHINERY FOR PAPER MILLS

## Reciprocating Steam Engines of Various Types

WRITTEN SPECIALLY FOR THE PAPER TRADE JOURNAL BY W. F. SCHAPHORST

(COPYRIGHT, 1921, BY W. F. SCHAPHORST)

*The following article is the second in a series of articles to be printed in the PAPER TRADE JOURNAL on the subject of Power Plant Machinery for Paper Mills. In this series of articles it will be the aim of the author to go through the entire power plant of the paper mill and give the non-technical official a pretty good idea of what he should have in his mill. As it is, owners and officials who are responsible for the buying frequently know very little about the different types of power plant machinery on the market.*

Although the steam turbine has made and is still making remarkable progress in the paper mill field, the reciprocating steam engine is still holding its own within certain limitations. The reciprocating type has and probably will hold for years to come a service record in steam power plants never approached by any other type of prime mover, especially in sizes up to one thousand horsepower. While it has been developed and perfected in different types with a view of great reliability of service, the matter of exceedingly high economy has been to a greater or less extent disregarded. In recent years builders have sought ways and means to eliminate the chief causes most detrimental to efficiency and to approach as nearly as possible the perfect engine.

A prevalent assumption is that it is not possible to obtain excellent results in steam economy operating non-condensing with other than high pressures and atmospheric exhaust, and often it has been stated that because an engine is to exhaust against five or ten pounds back pressure, it makes little or no difference what the efficiency of the engine is. However, this is seldom true.

Economy has been sought by manufacturers from every angle. To accomplish the desired result many different types of reciprocating steam engines have been developed, all with more or less complications and limitations, preventing their successful operation under high pressures and temperatures and at medium or high speeds, except with great cylinder condensation and leakage losses. To overcome these limitations and to meet present day requirements as to speeds and pressures, much study has been given by the engineering profession.

One of the serious objections to the reciprocating engine is the variable factor "leakage" which depends upon a number of conditions, principal among which are these two:

1. Engine workmanship
2. Care given the engine by the operator while in operation.

For example, a simple non-condensing engine after only thirty days of operation showed leakage of over 13 pounds of steam per horsepower per hour, while on the other hand a simple non-condensing engine after operating four years, operated almost as economically at the end of the four years as when new. The steam turbine has the advantage over the steam engine in this respect, leakage being no greater after many years of service than when new. In general the larger the steam engine, the more economical it is. The smaller the engine, the more wasteful.

To assist the paper mill authority so that he can select the most worthy steam engine candidate for his plant, the writer will endeavor to cover the entire field. No pretense is made at thoroughness. Only the outstanding features or arguments that are of greatest importance to the purchaser are brought out.

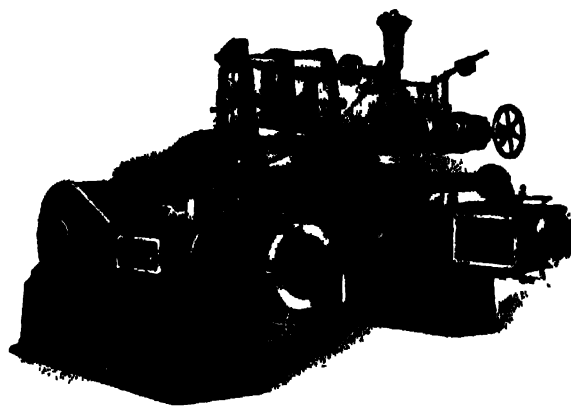
Reciprocating steam engines of today may be divided into three groups. (1) Simple Engines; (2) Corliss Engines, (3) Uniflow Engines. The first dates back to the time of James Watt; the second was developed by Geo. Corliss at about the time of the Civil War; and the third, according to the most authentic infor-

mation in the writer's possession, was invented in 1886 by an Englishman, L. J. Todd, and not by Prof. Stumpf of Germany, as is so commonly believed.

### The Simple Engine

There are many designs of simple engines with a multitude of valve types. Simple engines are operated either non-condensing or condensing, and they are operated at high or low speeds. This engine, though, is really "too simple" and too wasteful for use in large paper mill power plants unless for driving auxiliary machinery or for occasional peak load service. The first cost is low per horsepower—about one-half the cost of more efficient engines.

We will give the simple engine but little consideration for the



TYPICAL VARIABLE SPEED PAPER MILL ENGINE OF THE "SIMPLE VALVE" TYPE. (COURTESY AMES IRON WORKS, OSWEGO, N. Y.)

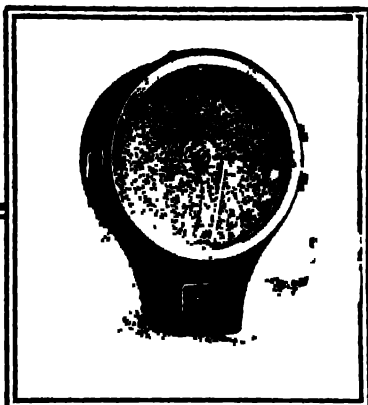
paper mill plant as being an economical engine. However, it is commonly used as a variable speed engine where continuous service and wide-range of speeds are required as shown in one of the illustrations herewith. The variable speed device on this engine is easily and quickly operated over a sufficiently wide range to meet the needs of any paper machine. This does away with lines of shafting, carrying heavy cone pulley and belting which absorbs a great deal of unnecessary power. This variable speed engine, belted or direct connected to the machines is simple in construction and is equipped with a complete automatic oiling system lubricating all moving parts, and eliminating the necessity of shutting down the engine for any purpose in connection with its lubrication. It is built in sizes from 50 to 600 horse power for belt drives to paper machines or line shafting which case side crank engine construction is employed as illustrated. The belt wheel is located on the main shaft between the two engines.

### The Corliss Engine

There are perhaps hundreds of designs and variations of Corliss engines, including valve and cylinder arrangements, most of which use the familiar dash pot releasing gear. Later designs, especially high speed Corliss engines are using the now well known non-releasing valve gear.

It is believed by many, not conversant with engineering, that there is no longer a great field for the Corliss engine, that it is out of date, that it is too large and unwieldy, and that it is not

(Continued on page 50)



## CONFIDENCE

Fifteen years and more is not an unusual length of service for a Bristol's Recording Instrument. In many industrial plants there may be found recorders which have been in constant use for this length of time. We are proud of these "old recorders"—they stand for just the sincerity and reliability we have endeavored to put into them.

### Time and Service Tested

TRADE MARK  
**BRISTOL'S**  
REG. U. S. PAT. OFFICE

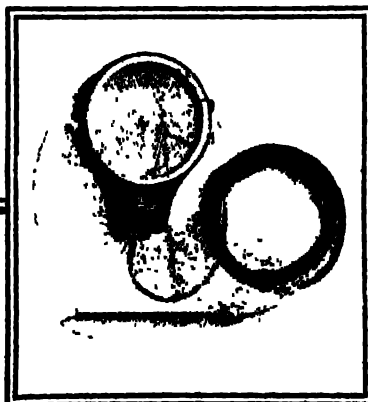
### Recording Instruments

have earned the confidence which could not be gained otherwise. They have proved beyond any doubt that the performance in service is all and more than we claim.

The ever-growing demand for recording instruments is shown by the fact that a little over thirty years ago the only recording instrument was the pressure gauge, while now our line includes: Recording Instruments for Pressure, Vacuum, Temperature, Electricity, Time, Motion, Speed, Humidity, etc.

Get copy of Information Bulletin 303 telling about this line of recorders.

**THE BRISTOL COMPANY**  
**WATERBURY, CONN.**



## Samuel M. Green Company

### Engineers

*Designers and Constructors of*  
**PULP and PAPER PLANTS, STEAM**  
**and HYDRAULIC POWER PLANTS**

**Investigation and Reports**  
**Chlorine and Bleach Specialists**

We design, construct and put in operation complete Bleach Plants and Electrolytic Plants for chlorine and caustic soda, using the Nelson Cell, which produces more chlorine and caustic soda per dollar than any other cell. Plants are simple and easily operated.

### Recent Contracts

Riordan Company, Limited—Temiskaming, Canada.

Toronto Paper Mfg. Company, Limited—Cornwall, Ont.

Diesen Wood Company—Wiborg, Finland.  
Iggesund Cellulose Fabriker—Iggesund, Sweden.

The Kellner Partington Paper Pulp Co.—Sarpsborg, Norway.

Titaghur Paper Mills Co., Ltd.—Bengal, India.

Eaton, Crane & Pike Co.—Pittsfield, Mass.  
Falulah Paper Co.—Fitchburg, Mass.

Hampshire Paper Co.—South Hadley Falls, Mass.

*Write Us for Data*

**Samuel M. Green Company**  
**ENGINEERS**

Springfield,



Mass., U. S. A.

## SELECTING POWER PLANT MACHINERY FOR PAPER MILLS

(Continued from page 48)

as efficient as the steam turbine or other modern types of prime movers. These statements, however, are far from the truth. The real advantages of the steam turbine in strictly power plant work are seldom realized until one reaches the capacity of about 300 kw. Between 300 kw and 500 kw the purchaser should carefully weigh the respective merits of the reciprocating engine and the steam turbine. At 500 kw, and higher the Corliss engine has very little in its favor and the steam turbine has practically all of the good arguments.

Even above 500 kw, however, up to as high as 2,500 kw if the exhaust steam can be used for heating or process work, as is the case in paper mills, there are no serious objections to the use of the Corliss engine. One manufacturer is now building a 2,500 kw Cross Compound Corliss engine unit to operate non-condensing and this order was secured entirely on question of economy in competition with steam turbines. Or, if a Corliss engine is already installed and it is desired to increase the capacity of the plant, the most economical procedure might be to install a low pressure steam turbine and operate it with the exhaust from a Corliss engine. This point will be covered in a future article.

One of the objections to the steam turbine advanced by the manufacturers of Corliss engines is that the steam turbine thrives only on high vacuum. The higher the vacuum the greater the economy of the turbine. It is not always an easy matter to maintain a high vacuum, especially during the summer months when cooling water is scarce, or when the temperature of the cooling water is high. Corliss engines on the other hand give sufficiently high economy at 24 inches of vacuum, a vacuum that is easily maintained throughout the twelve months of the year. The latest type of Corliss engines will operate successfully under steam temperatures that can be used by any other type of steam prime mover and its steam consumption will be less than the steam turbine when vacuum is less than 26 inches, and lower than any other type of reciprocating steam engine under all conditions. The Corliss engine requires less cooling water, less spray pound area, a smaller cooling tower, etc. Much depends upon local conditions in the selection of the prime mover, hence the water question alone may be an important enough factor to give preference to the Corliss type of engine.

The Corliss is an excellent engine for operating on variable loads. That is, it is practically as economical when running at three-quarters load as when running at full load. Besides, it can be overloaded usually by 25 per cent, and it is still about as efficient when overloaded as when running normal.

The paper mill authority will therefore do well seriously to consider the Corliss engine for loads up to 300 kw, while from 300 kw to 400 kw, he should begin to listen more attentively to the turbine salesman.

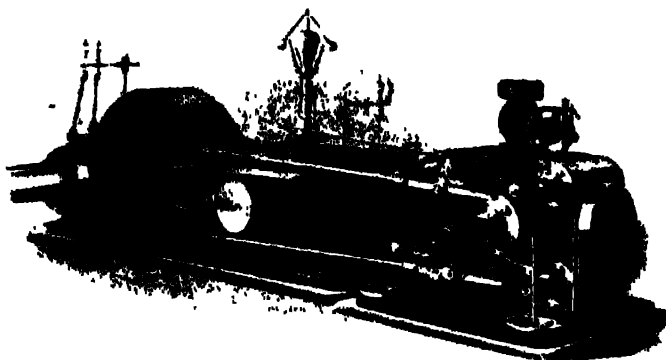
Although first cost is too often one of the dominating points in making power plant purchases, and although economy of operation is also considered very important, one of the most important points of all in the paper mill plant is, "reliability." If the engine is unreliable, if it stops every once in a while, if it is likely to explode or break down, or if it is liable to wear out in a short time, its use certainly should not be encouraged. The Corliss engine has proved itself to be thoroughly reliable in every respect, some Corliss types having been in use for so many years that the users claim they will apparently "never wear out." As now made with its non-releasing gears it is practically foolproof, which is a long step in advance of the old dash pot type.

The Corliss engine is frequently "compounded" and "cross-compounded," or, occasionally it is arranged in tandem. In a cross compound engine the cylinders are placed side by side, each cylinder

having a piston rod, connecting rod and crank of its own. A fly-wheel is usually placed between the cranks. The cross compound design is still commonly used. In tandem engines the cylinders are placed in one line, both pistons being on the same piston rod and both cylinders transmitting power to the same crank. The tandem engine is seldom used these days, although one may be occasionally specified to advantage on account of space conditions.

The manufacturers of the Corliss engine claim that as compared with the Diesel oil engine the Corliss is far more reliable, the upkeep cost is much less and the life is much longer. They admit, though, that the Diesel has its own field in the same way that the Corliss engine, the simple engine and the uniflow engines have their own fields.

"Cylinder Condensation" is one of the most serious objections to



A TYPE OF CORLISS ENGINE THAT IS COMMONLY INSTALLED IN PAPER MILLS (COURTESY OF THE MURRAY IRON WORKS, BURLINGTON, IA.)

the Corliss engine, as well as to the simple engine, whether condensing or non-condensing, whether single expansion, double, triple, or quadruple expansion. Many efforts have been made by engineers to eliminate this loss. Rankine says with reference to cylinder condensation for instance "In some experiments the quantity of steam wasted through alternate liquefaction and evaporation in the cylinder has been found to be greater than the quantity which performed the work."

To reduce the loss due to cylinder condensation high engine speeds have frequently been resorted to so that we now have the so-called "high speed" types as well as the "low speed" types. High speeds actually reduce cylinder condensation losses, but the overall efficiency of the engine is nevertheless not increased, and besides, the life of the engine is shortened. The life of a low speed engine varies from twenty- to thirty-three years, whereas the life of the high speed engine varies from only ten to twenty years.

Superheating the steam is one favorite method employed to reduce or eliminate the loss due to condensation. There is no question but that superheat increases the efficiency, but, there is such a thing as carrying superheating too far. In reciprocating engines it is found that cylinder condensation is eliminated if superheated steam can be carried just up to the point of cut-off, or according to Ripper about 150 deg. F. superheat is sufficient.

It has also been found that it is best to use superheated steam with all engine speeds where the cost of fuel is high and where loads do not fluctuate violently.

In order to show the advantages of superheated steam as compared with non-superheated steam and at the same time to show the economy of reciprocating engines we have records of the best

(Continued on page 52)

**HAMMERMILL**  
**BOND**

**HAMMERMILL**  
**COVER**

**HAMMERMILL**  
**LEDGER**

**HAMMERMILL**  
  
**SAFETY**

**HAMMERMILL PAPER CO.**  
**ERIE, PENNSYLVANIA**

**EASTERN OFFICE      291 BROADWAY      NEW YORK CITY**

**"AMERICAN"**

**PAPER MAKERS TWINE**  
**WALL PAPER TWINE**  
**FINE AND COARSE POLISHED TWINES**  
**"AMERICAN" BRAND MANILA ROPE**  
**"AMERICAN" BRAND TRANSMISSION ROPE**

**TUBE ROPE**  
**HAY ROPE**

The name "AMERICAN" as applied to cordage means "more value in every way." Send for copy of our General Catalogue, Prices and samples.  
Address Department M.

*Largest Makers of Commercial Twines and Ropes in the World*

**AMERICAN MANUFACTURING CO.**  
**NOBLE AND WEST STREETS, BROOKLYN, NEW YORK CITY**

**CORDAGE**

## SELECTING POWER PLANT MACHINERY FOR PAPER MILLS

(Continued from page 50)

current practice in Germany, where simple non-condensing engines produce one horsepower per hour on 19 to 22.3 pounds of steam per hour. Using steam superheated 260 deg. F. the consumption dropped to 13.4 to 16.1 pounds of steam per horsepower hour.

In Germany, again, a simple condensing engine is operated without superheat on 16.3 to 17.5 pounds of steam per horsepower

valve non-condensing engine uses 54 per cent more steam than a similar condensing engine. A simple engine with steam slightly superheated used 25 per cent more steam when operating non-condensing than when operating condensing, and the same engine when operated with 260 degrees superheat used 36 per cent more steam when non-condensing than when condensing. Lastly, a com-



A TYPICAL UNIFLOW ENGINE INSTALLATION IN THE PLANT OF THE CHARLES BOLDT PAPER MILLS. (COURTESY OF THE NORDBERG MFG CO., MILWAUKEE, WIS.)

hour, whereas with 260 deg. F. superheat the consumption dropped to 10.0 to 11.6 pounds of steam per horsepower hour.

Compound condensing engines without superheat show rates of steam consumption as low as 11.98 pounds of steam per horsepower per hour, and as high as 16.8. With 307 degrees superheat the rate drops as low as 8.99 pounds of steam per horsepower hour. At 260 deg. F. superheat the consumption is given at 9.4 to 11.2 pounds of steam per horsepower per hour.

Triple compound condensing engines give slightly better economy than compound condensing, but the difference is so slight that in the writer's mind the figures are not worth recording here.

Where exhaust steam cannot be used profitably Corliss engines should usually be operated condensing because the condensing engine is much more economical as regards steam consumption. Back pressure should be kept down as low as possible. If there is any unnecessary back pressure at any time it is certain to result in an unnecessary loss. For example, according to actual engine tests a simple four valve non-condensing engine consumes 35 per cent more steam than a similar condensing engine. A compound four

pound steam engine using superheated steam requires 27 per cent more steam when running non-condensing than when running condensing.

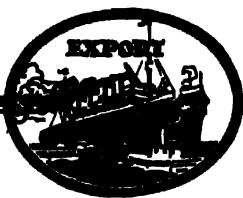
Non-condensing compound Corliss engines have been made and have been used, but commercially they proved to be unsuccessful without utilizing the exhaust, although they produced a horsepower per hour on as little steam as 16.13 pounds.

### The Uniflow Engine

Of all reciprocating steam engines in the power plant field the uniflow engine is today commanding most attention. It is more efficient than the older types of reciprocating steam engines and is replacing many of them. It even competes with the steam turbine in sizes up to 1,500 kw. or even higher.

A great many uniflow engines are already in use in paper mills because it is well adapted to paper mill service, especially if the engine is to run condensing and non-condensing, under which conditions the overall economy is much better than for any other type.

(Continued on page 54)

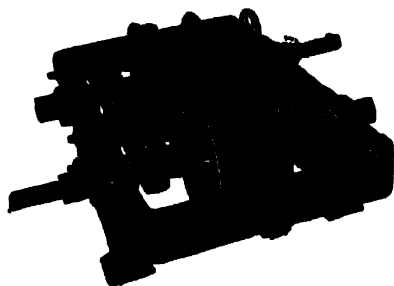


EVERYTHING IN  
**PULP & PAPER**

**J. F. PATTON CO., INC.**

**33 West 42<sup>nd</sup> St.  
New York City**

(Cable address - Pulp, N.Y.)



*The Reeves*

**VARIABLE  
SPEED  
TRANSMISSION**

If it's a question of getting the exact speed on your Paper Machine to suit the condition of the paper being manufactured, then "THE REEVES" Variable Speed Transmission is exactly what you want.

The following are a few improvements and refinements incorporated in the manufacture of "THE REEVES" Transmission:

**TWO KEYS, full length of shaft  
LARGER DISCS  
LARGER DISC HUBS  
PATENT EQUALIZING COLLARS**

Special high duty Ball Bearings are furnished for the main thrust bearings and the main box bearings if desired.

Write for new catalog T-29

**REEVES PULLEY COMPANY**  
COLUMBUS, INDIANA



## ECONOMY

By Shepard "Aerial Railway" rehandling

Cost of rehandling pulp cut almost in half; five men released for more productive activity, greater efficiency and speed in doing the work—these are reasons why a Shepard Electric Hoist pays the Stevens and Thompson Paper Company, Greenwich, N. Y. The savings in handling one year's tonnage more than pays for the hoist which will continue to pay for itself many times.

This economy is appreciable and a vital factor in lowering production costs and is typical of the service rendered by "Shepards" wherever installed.

You, too, can cut costs by sending your loads via the "Aerial Railway" with a Shepard Electric Hoist; rehandling is done most efficiently—in the least time—at the lowest cost.

Shepard Engineers have planned efficient handling systems in many paper mills. They are at your service. You assume no obligation in inquiring.

Shepard builds Electric Hoists; Electric Travelling Cranes; Electric Transfer Cranes; Electric Winches; Electric Cargo handling equipment for docks and ships.

**SHEPARD ELECTRIC CRANE & HOIST CO.**  
378 Schuyler Ave., Montour Falls, N. Y.

New York	Chicago	Philadelphia	Pittsburgh
Cleveland	San Francisco	Baltimore	New Orleans
Birmingham	Chattanooga	Detroit	Cincinnati
Buffalo	Melbourne	Montreal	London

Member Electric Hoist Manufacturers' Assn

## SELECTING POWER PLANT MACHINERY FOR PAPER MILLS

(Continued from page 52)

of engine. In most cases the paper mill engine operates against a back pressure, exhaust steam being used for drying purposes. It is necessary that this exhaust be free from oil, a condition that is made possible with the use of poppet valves and floating pistons.

In the uniflow engine the length of the piston is usually equal to or greater than the diameter of the cylinder. The piston itself serves both as a piston and as a slide valve. The engine gets its name from the "one direction flow" of the steam. Operating on a strictly "uniflow" principle, steam is admitted through valves in

vided for the purpose. In this case the greater volume of steam is exhausted through the central ports and the balance through the auxiliary valves. These valves are instantly brought into or out of action by the operator whenever necessary.

This particular make of uniflow engine is provided with improved "double beat" poppet valves, which the manufacturers claim will always remain steam tight. Tightness is often, if not usually, lacking in engines having sliding or rotating surfaces. These valves permit the use of very high steam pressure and high superheat, ad-



HIGH CAPACITY VARIABLE SPEED CORLISS ENGINE INSTALLED IN A PAPER MILL. (COURTESY ALLIS-CHALMERS CO., MILWAUKEE, WIS.)

the usual way and is exhausted at the middle of the cylinder by the uncovering of the ports by the piston.

It is stated by one prominent manufacturer of the uniflow engine that they do not claim their engine to be universally useful, but that it has its own special fields. The manufacturers of this particular engine claim that their product is now to be found in plants of all sizes where high economy in the use of steam is desired and that its outstanding characteristics are its ability to carry an extremely wide variation in load with but small variation in economy. In fact, it is claimed that with a load ranging from 25 per cent to 125 per cent of normal the economy does not vary more than 10 per cent. The steam consumption at normal load is practically the same as in the high grade compound Corliss engine, but it is less for other loads.

Furthermore, this particular make of engine is designed to run either condensing or non-condensing, features which readily adapt it to conditions where exhaust steam is utilized, as in the paper mill. When this engine operates non-condensing it is simply necessary to bring into action a set of "auxiliary exhaust valves" pro-

vided too frequently lacking in other reciprocating steam engines. The manufacturer of this type builds uniflow engines in sizes ranging from about 200 to 2,000 horsepower.

As compared with the steam turbine, it is claimed by the manufacturers of the uniflow engine that the latter has a better overall efficiency than the turbine for underloads and overloads. Inasmuch as most paper mill power plants operate with more or less variation in load, uniflow engines give a very good overall efficiency for such service. Further, since the uniflow is adapted to run either condensing or non-condensing nothing serious occurs if a strictly condensing uniflow engine should suddenly lose its vacuum. This would be impossible in the case of a steam turbine designed to run condensing.

As far as the writer knows no uniflow engine has ever been built for operating in connection with or exhausting into a steam turbine. The manufacturers claim that there is no need whatever for exhausting steam from the uniflow engine into a low pressure turbine, because the uniflow engine is designed to take care of the whole

(Continued on page 56)

Howard Bond



Howard Ledger

**"The Paper of Many Uses"***Manufactured by***THE HOWARD PAPER COMPANY,****Urbana, Ohio**

Buy "signed" valves—with the Jenkins Diamond Mark and signature on the body.

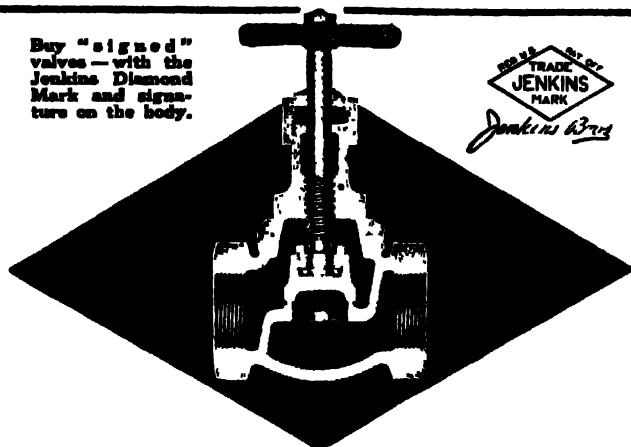


Fig 75  
Globe Screwed

**All Iron Valves**

Suitable for a variety of purposes, including the handling of solutions of cyanide, saltpetre, caustic potash, dye stuffs, and various acid and alkaline fluids. Regularly made with solid iron clapper, but when so ordered can be furnished with iron disc holder, and renewable Jenkins Disc.

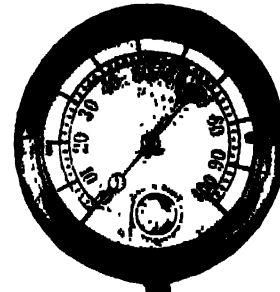
Suitable for 175 pounds working pressure. Made globe, or angle with screwed bonnet or with yoke

**JENKINS BROS.**

New York Boston Philadelphia Chicago  
Montreal Havana London

FACTORIES: Bridgeport, Conn.,  
Elizabeth, N. J., Montreal, Canada

**Jenkins Valves**  
SINCE 1884

**The Old Made New****BEFORE****AFTER**

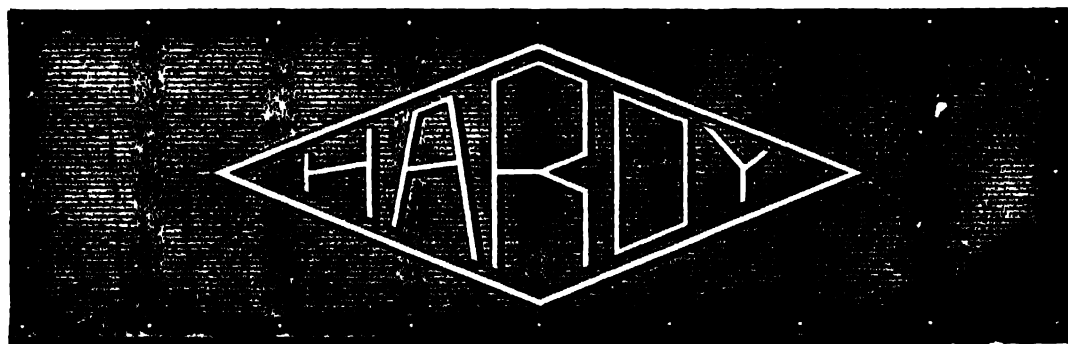
Write us stating number, size and make of your Gauges—We will give you price for repairing before they leave your office.

**REGARDLESS OF WHO MANUFACTURED YOUR GAUGES, Regardless of their CONDITION, we GUARANTEE to put them in First Class Working Condition**

Send your old gauge to be repaired—no charge—as a sample of the quality and delivery of our work. Immediate delivery of work that is uniformly excellent, at a satisfactory cost.

**The Manning Gauge Company, Inc.**  
77 Traverse Street, BOSTON, MASSACHUSETTS

**WILLIAM A. HARDY & SONS COMPANY, Fitchburg, Mass., U.S.A.**



## SELECTING POWER PLANT MACHINERY FOR PAPER MILLS

(Continued from page 54)

range of steam expansion in one cylinder. However, it is the opinion of the writer that in an emergency where a uniflow engine is already installed and where it is desired to increase the power, it would be feasible and possibly economical to connect a low pressure steam turbine to the exhaust of a uniflow engine.

Another uniflow engine advantage is exhaust valve leakage is almost entirely eliminated because the exhaust port is never under high pressure. The design of the uniflow system reduces leakage to the minimum and the design also reduces back pressure to the minimum.

As for the first cost of a uniflow engine this is somewhat greater than the first cost of the steam turbine, but this additional cost is more than offset by the greater efficiency of the uniflow engine when operating under variable loads.

The following is a table of loads and steam consumption of a typical uniflow engine. This is a 24 x 36 engine direct connected to a 500 Kw generator, the engine operating at 150 R. P. M., with 150 pounds steam pressure, 150 degrees superheat, and 26 inches of vacuum.

Load . . . . .	1/4	1/2	3/4	Full
Kilowatt . . . . .	125	250	375	500
One horsepower . . . . .	219	404	579	754
Pounds steam per horsepower hour . . . . .	116	113	118	125
Approx. pounds of steam per Kw hour . . . . .	203	183	183	188

To be sure the uniflow engine is not perfect, being comparatively new in the power plant field. The prospective purchaser should know the principal objections advanced to be certain that these objections will be avoided if possible in his engine.

The chief objections to the uniflow engine are

- (1) The high compression in non-condensing engines.
- (2) The higher cost of the engine as compared with other steam engines of equal power. This objection, of course, cannot be avoided.
- (3) The uniflow is still in the experimental stage. More development is needed.
- (4) The valve gear is not rugged enough.
- (5) At light loads and at starting there is noise from the valves.
- (6) In one installation it was necessary to put motors in the flywheels to change the speed when running.
- (7) Trouble is experienced with cylinder fractures.
- (8) Valve adjustment is too fine.
- (9) It is necessary for best results to use superheated steam and run under a vacuum.

(10) It is claimed by the manufacturers of Corliss engines that the cross-compound Corliss is superior to the uniflow engine. In fact it is claimed by some of them that the uniflow engine is a "freak" in the same way that racing yachts are simply "freaks" and of no practical value whatever. These critics claim that the uniflow will eventually prove to be less reliable than the Corliss engine. To substantiate this claim the writer was shown these statements made by a one-time user of the uniflow engine.

"The uniflow requires a good vacuum otherwise it slows right down. Ours is very noisy in working and causes tremendous vibration.

"My own view of a uniflow engine is that it is a great nuisance to be dependent on vacuum.

"Our engine has been an expensive experiment for the makers and an expensive and unreliable engine for us."

Yet, in spite of these anti-uniflow engine arguments the fact remains that the first successful uniflow engine built in the United States was built in 1911. It is still in constant operation in the

City Water and Light Plant at Cedarburg, Wis., where it is claimed by its makers to be giving excellent service. That particular engine was equipped with Corliss valves, a design that has since been abandoned because of modern high steam pressures, the inability of the engine to use superheated steam and the non-adaptability of the valve gear for moderate rotative speeds.

### Belt Driven Generators

In former years belts were used a great deal for transmitting power from the steam engine to the generator. The method is still commonly used but it is not to be recommended for modern plants unless space is no object, or unless it is desirable to utilize an old belt driven generator which happens to be on hand. A belt driven generator usually costs less than a direct connected generator, but since more space is required this additional saving may be more than offset by the additional cost of the space. Practically all uniflow engines are direct connected to the generator and do not drive through belts. Belted Corliss engines are commonly found throughout the country.

Where a belted generator is selected it should be remembered that the efficiency of the plant is dependent to a surprising degree upon the efficiency of the belt transmission. Belt transmission, though, need not necessarily be inefficient. Efficiencies as high as 98 per cent have been recorded. Ninety-five per cent, at least, should be obtained with any important main drive in a paper mill. This is attained by accurately aligning the pulley and flywheel in the first place and then by maintaining that alignment. The belt should be properly treated so that it will always be soft and pliable with a high friction coefficient. High "drumstring tension" should not be tolerated because unnecessarily high tension increases the bearing friction unnecessarily, is hard on the belt, causes premature wear in the journals, and also requires a wider and more costly belt. A properly cared for belt will permit slack or easy running. The belt will operate with a larger arc of contact and there will be less danger of slip than with tight uncared for belts. A good rule to remember is this: Each per cent of slip of the main belt costs one per cent of the annual fuel bill. Thus if the average belt slip is three per cent the annual cost of that slip is three per cent of the annual fuel cost. Hence it is often possible to save hundreds of dollars annually by giving the belt a few dollars' worth of extra care per year.

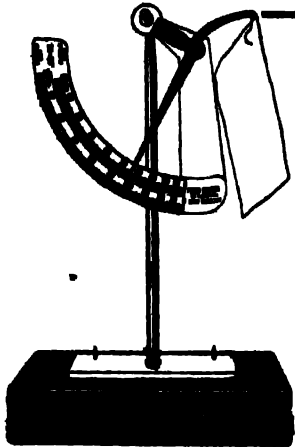
Belt driven generators therefore need not be avoided, but if selected they should be carefully operated. The writer knows that a great many belt driven plants could be vastly improved by improving the belt. Direct connection to the generator, of course, eliminates all belt troubles.

### Tuscaloosa May Have Paper Mill

TUSCALOOSA, Ala., October 24, 1921—At the regular meeting of the directors of the Chamber of Commerce last week the report of Forest Engineer George Drolet on the possibilities of a paper mill and the consideration of inquiries received from different interested capitalists, resulted in a motion by F. G. Blair that the industrial committee proceed at once to organize and incorporate a paper mill industry in Tuscaloosa.

The possibilities for the successful operation of a paper mill in Tuscaloosa have long been appreciated by the leading business men of this city, as well as by a number of successful paper operators in the east.

A few of these possibilities that make Tuscaloosa a logical location are rail and water transportation, unlimited supply of raw material, for print and kraft paper, cheap labor, plenty of water, cheap coal, electric power and the south as a whole as a market for the finished product.



**MADE IN U. S. A.**  
**The Baker Universal**  
**Paper Scale**

Collapsible, for Desk or Pocket. A small piece of paper indicates automatically ream weights per 480 and 500 sheets in sizes 24x36, 20x30, 17x22, 25x38 or any size desired. A scale for every purpose.

**FRED BAKER**

Manufacturer of Precision Paper Scales  
 34 West 28th St., New York City  
 Established 1912  
 Phone: Chelsea 9135-9136

**The Northern Wood Supply Co.**

**GENERAL**  
**Pulpwood Dealers**

Hearst, Ontario, Canada

*Correspondence Invited*  
**ALL CLASSES OF PULPWOOD**

**POTDEVIN**

**PAPER BAG**

**ENVELOPE** (Open-end  
Center or  
Side-Seam)

**PAPER WAXING**

**MACHINERY.**

**POTDEVIN MACHINE CO.**

1223 38th Street

Brooklyn, N. Y.

Est. 1893—Inc. 1906

Phones: 5180-5181 Sunset



**POLAND**  
**PAPER COMPANY**

MANUFACTURERS OF

**Bond, Ledger, Writing, Envelope, Strong Book, Coating**  
**and other 100% Bleached Sulphite Specialties**

Your inquiry will receive immediate attention without incurring any obligation

**MILLS AT**  
**MECHANICS FALLS, ME.**

**Sales Office**

**200 FIFTH AVE.**  
**NEW YORK**

**STANDARD PAPER COMPANY, NEW YORK, N. Y.**

# New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,  
WEDNESDAY, October 26, 1921.

The outlook in the New York paper market is steadily improving. The tendency is markedly toward better business. Optimism is the watchword. All are agreed that the worst phases of the economic readjustment have been witnessed and that from now on a recuperative movement will be noted that will gradually but persistently bring affairs back to a pre-war basis, possibly not until some time next year. Deep breaths of relief have been drawn on all sides upon learning how affairs pertaining to the threatened rail strike are ironing themselves out. About the only effect that strike rumors have recorded so far on the paper industry has been the increased demand from publications which have been running with low reserves of stock. Buying has been generally stimulated, but by no means to any excitable extreme. The production of wood pulp paper has been retarded lately, due to the low water in Maine and in the western states. There is not sufficient pressure in several localities to grind wood at all. This condition coupled with the usual fall demand can mean little less than a general stiffening of the market. All roads lead to improvement at present, and a good conservative state of normalcy is soon expected to be with the paper trade. A great war leaves behind it the necessity of a great reconstruction which can only proceed slowly at best. On account of the noticeably regular but slow improvement it is expected that no runaway market will rule but that a strong and conservative one will hold forth for some weeks to come.

News print has been in good demand during the last week, since most publications have seen fit to increase their supplies of paper to safeguard their interests against a possible railroad strike. The supply has been a bit limited due to the drought of the past months and the attendant slow production of wood pulp. The prices are a little lower than last quoted with contract rolls at 4 cents a pound, transit rolls at 4 to 4.25 cents and sheets at 4 to 4.50 cents.

The market for book paper holds firm with orders slowly increasing. Prices remain constant on the whole, although the range for cased book S and S C, f o b. New York, has widened to from 6.75 to 7.75 cents. There is still room for improvement in this department but the feeling is optimistic rather than otherwise.

Fine paper moves forward very slowly, although more interest than usual was manifested this last week. Prices are the same. This market is apt to be backward when conditions are unsettled as at present, but nevertheless the outlook is far from discouraging and fine paper will be in better demand as soon as other lines are normal.

Tissue is improving. The market is fairly strong and the general feeling good. Prices are a bit higher with No. 1 white standing at from 75 cents to \$1, colored \$1.10 to \$2.15, anti-tarnish 80 cents to \$1, and silver tissue \$1.50 to \$2.70.

There has been a conspicuous stiffening in kraft lately. The demand is increasing and the market strong. The fact that some kraft mills are behind in their orders at present is an omen that bids evil to no one. Prices are approximately the same.

The board market continues to be quiet with prices varying but little. The tendency is toward an increased demand, and greater interest is anticipated in the near future. News board is the most active of the group, selling at from \$40 to \$45 a ton.

## Mechanical Pulp

The mechanical pulp market remains rather quiet on account

of the limited production during the last few months. The low tonnage in the market finds ready buyers and will be greatly augmented as soon as the rivers of New England again flow on in normal volume. The prices are in equilibrium on the whole, both imported and domestic pulp selling at from \$30 to \$35.

## Chemical Pulp

Sulphite pulp is extremely active at present while the demand for sulphate is not so good. Producers in Sweden are running at only 55 per cent capacity, and are temporarily embarrassed by German competition. Quantities of bleached sulphite are moving at substantial prices. Job lots appear to be well cleared away, and manufacturers are now awaiting the days when they will again receive orders for large tonnages extending over considerable periods.

## Old Rope and Bagging

The demand for old rope and bagging is somewhat lax and the market dull on the whole. The better grades of paper are not yet in great demand and so interest in this department must needs lag until general conditions are better.

## Rags

Roofing stock again leads the field for popularity under this head. The demand has increased perceptibly and a good quantity is on hand for disposal at prices which remain firm. White stock is selling better than colored, although the latter has improved somewhat over last week's condition.

## Waste Paper

The general market for waste paper has remained constant during the last week except for a few minor fluctuations. Hard white shavings continue in fair demand with quotations inclining a little.

## Twine

The attitude in the twine market seems to be one of watchful waiting for the present. Prices are unchanged from those given last week. A betterment is expected in the very near future, and for the present an optimistic spirit prevails through the trade.

## Dr. Baker Objects to Features of Appleby Bill

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 26, 1921.—Dr. Hugh P. Baker, secretary of the American Paper and Pulp Association, appeared on Tuesday before the House Rivers and Harbors Committee, objecting to certain features of the so-called Appleby bill, which provides a penalty for the dropping of oil by steamers, tankers, etc., and which also provides a penalty for refuse running into streams.

Dr. Baker told the committee that the paper manufacturers are not opposing the whole bill but he suggested if the bill was made to apply to industrial plants that a more thorough investigation should be undertaken before the bill is passed. He called the committee's attention to the fact that many of the paper mills are having a hard enough time now because of the business depression, and that if a bill of this kind were passed at this particular time many of the paper mills would have to close up. He spoke of the supply of good water which is needed by the paper mills of the country and told the committee that such refuse as is let into the streams from the various mills is small in quantity.

A. D. Coffin, of Dexter & Sons, of Winslow Locks, also attended the hearing but did not appear before the committee.

# Market Quotations

## Paper Company Securities

New York Stock Exchange, closing quotations October 25, 1921:

Stocks	BID	ASKED
American Writing Paper Company, pref	22	23
International Paper Company, com	51 1/2	54
International Paper Company, pref, stamped	70	71
Union Bag & Paper Corporation	67	68

Because of the unusual conditions prevailing in the various markets quotations are more or less nominal

Paper	F o. b. Mill	
Ledgers	12	@ 40
Bonds	9.00	@ 55.00
Writings		
Extra Superfine	13	@ 25
Superfine	13	@ 20
Tub Sized	13	@ 16
Engine Sized	9.00	@ 15.00
News—f o. b. Mill—		
Rolls, contract	4.00	@
Rolls, transit	4.00	@ 4.25
Sheets	4.00	@ 4.50
Side Runs	3.50	@ 4.00
Book, Cased—f o. b. N. Y.—		
S & S C	6.75	@ 7.75
M F	6.50	@ 7.50
Coated and Enamel	8.25	@ 11.00
Lithograph	9.00	@ 11.25
Tissues—f o. b. N. Y.—		
White, No. 1	75	@ 1.00
Colored	1.10	@ 1.50
Anti Tarnish	.80	@ 1.00
Silver Tissue	1.50	@ 2.70
Manila	.70	@ .80
Kraft—f o. b. Mill—		
No. 1 Domestic	6.50	@ 7.00
No. 2 Domestic	5.75	@ 6.25
Imported	6.00	@ 6.50
Sulphite Screenings	2.00	@ 3.00
Manila—		
No. 1 Jute	8.00	@ 9.00
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	5.00	@ 6.00
No. 2 Wood	4.50	@ 5.00
Butchers	4.90	@ 5.70
Fiber Papers—		
No. 1 Fiber	6.00	@ 7.00
No. 2 Fiber	5.00	@ 6.00
Common Rag	1.80	@ 2.10
Card Middles	4.00	@ 5.00
Boards—per ton—		
Straw	35.00	@ 40.00
Chip	35.00	@ 40.00
Binders' Board	65.00	@ 75.00
Sgl Mla 1/4 Cup	55.00	@ 60.00
Wood Pulp	80.00	@ 90.00
Container	65.00	@ 70.00

## Mechanical Help

(1 x Dock)

No. 1 Imported	30.00	@ 35.00
No. 1 Domestic	30.00	@ 35.00

## Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	4.00	@ 4.25
Easy Bleaching	3.00	@ 3.50
No. 1 Strong unbleached	2.50	@ 3.00
No. 1 Kraft	2.50	@ 2.75
Sulphite—		
Bleached	3.25	@ 3.75
(f o. b. Pulp Mill)		
Sulphite (Domestic)—		
Bleached	4.00	@ 4.25
Strong unbleached	3.00	@ 3.25
Easy Bleaching		
Sulphite	3.00	@ 3.25
News Sulphite	2.75	@ 3.00
Mitscherlich	3.15	@ 3.75
Kraft (Domestic)	2.75	@ 3.00
Soda bleached	4.00	@ 4.25

## Domestic Rags

Prices to Mill, f o. b. N. Y.

Shirt Cuttings—		
New White, No. 1	10.00	@ 10.50
New White, No. 2	6.00	@ 6.50
Silkmans, No. 1	6.50	@ 7.00
New Unbleached	8.75	@ 9.25
Washables	4.50	@ 5.00
Fancy	5.50	@ 6.00
Cottons—according to Grades—		
Blue Overall	6.00	@ 6.50

New Blue	5.25	@ 6.00
New Black Soft	3.75	@ 4.00
New Light Ser		
onch	2.75	@ 3.00
O D Khaki Cuttings		
Corduroy	3.75	@ 4.00
New Canvas	3.00	@ 3.25
New Black Mixed	7.00	@ 7.50
Old	2.75	@ 3.25
White, No. 1—		
Repacked	6.00	@ 6.50
Miscellaneous	5.00	@ 5.25
White No. 2—		
Repacked	3.50	@ 3.75
Miscellaneous	3.00	@ 3.25
St. Soiled White	1.40	@ 1.60
Thirds and Blues—		
Repacked	2.00	@ 2.25
Miscellaneous	1.50	@ 1.75
Black stockings	1.75	@ 2.00
Cloth Strippings	1.15	@ 1.25
No. 1	1.25	@ 1.30
No. 2	1.05	@ 1.10
No. 3	.95	@ 1.00
No. 4	.95	@ 1.00
No. 5A	.85	@ .90

## Foreign Rags

New Light Silkmans	6.00	@ 6.25
Light Flannelettes	6.25	@ 6.50
Unbleached Cottons	7.50	@ 8.00
New White Cuttings		
New Light Oxfords	9.50	@ 10.50
New Light Prints	5.50	@ 6.00
New Mixed Cuttings	4.50	@ 5.00
nominal		
New Dark Cuttings	2.50	@ 3.00
No. 1 White Linens	8.00	@ 9.00
No. 2 White Linens	6.00	@ 7.00
No. 3 White Linens	5.00	@ 5.25
No. 4 White Linens	3.50	@ 4.00
Old Extra Light Prints	2.00	@ 2.25
Old Light Prints	1.75	@ 2.00
Med. Light Prints	nominal	
Dutch Blue Cottons	2.00	@ 2.15
German Blue Cuttings		
tons	1.75	@ 1.90
Get Blue Linens	3.00	@ 3.50
Checks and Blues	1.50	@ 1.60
Dark Cottons	1.10	@ 1.15
Shippers	1.00	@ 1.05
French Blues	2.00	@ 2.15

## Bagging

Prices to Mill f o. b. N. Y.

Gunny No. 1—		
Foreign	1.00	@ 1.10
Domestic	1.10	@ 1.20
Wool, Tares, light	1.20	@ 1.30
Wool, Tares, heavy	1.25	@ 1.40
Bright Bagging	1.20	@ 1.35
No. 1 Scrap	1.00	@ 1.10
Sound Bagging	.75	@ .85
Manila Rope—		
Foreign	4.25	@ 4.65
Domestic	4.50	@ 4.75
New Ru Cut	2.25	@ 2.75
Heavy Jute Threads—		
Foreign	4.25	@ 4.50
Domestic	4.00	@ 4.25
Mixed Strings	.85	@ .95

## Twines

Cotton— (F. o. b. Mill)		
No. 1	32	@ 31
No. 2	30	@ 32
No. 3	26	@ 28
Indm, No. 6 basis—		
Light	15	@ 15 1/2
Dark	15	@ 15 1/2
B. C. 18 Basis	39	@ 40
A. B. Italian, 18 Basis		
Finished Jute—		
Light, 18 basis	28	@ 29
Dark, 18 basis	26	@ 28

## Jute Wrapping, 2-6

1 ply—		
No. 1	25	@ 26
No. 2	23	@ 24
Tube Rope—		
5 ply and larger	17	@ 18
Fine Tube Yarn—		
5-ply and larger	30	@ 32
4-ply	31	@ 33
3-ply	32	@ 34
Unfinished Indm—		
3-ply and larger	16	@ 17
Paper Makers Twine		
10 1/2	@ 12 1/2	
Box Twine, 2 1/4 ply	14	@ 16
Jute Rope	20	@ 24
Amer Hemp, 6	32	@ 34
Sisal Hay Rope—		
No. 1 Basis	19	@ 22
No. 2 Basis	18	@ 20
Sisal 1 1/2 Yarn—		
No. 1	18	@ 19
No. 2	17	@ 19
Manila Rope	26	@ 28

## Old Waste Papers

(f o. b. New York)

Shavings—		
Hard White, No. 1	4.25	@ 4.50

Hard White, No. 2	3.25	@ 3.50
Soft White, No. 1	3.20	@ 3.35

Flat Stock—		
Stitchless	.115	@ .165
Over Issue Mag	1.65	@ 1.70
Solid Flat Book	1.50	@ 1.55
Crumpled No. 1	1.15	@ 1.25
Solid Book Ledger	2.00	@ 2.50
Ledger Stock	1.75	@ 2.25
No. 1 White News	2.00	@ 2.15
New B B Chips	.60	@ .65

Manila—		
New Env Cut	3.00	@ 3.15
New Cut No. 1	2.15	@ 2.25
Extra No. 1, Old	1.60	@ 1.70
Print	.90	@ 1.00
Container Board	.85	@ .90
Bogus Wrapper	.65	@ .75
Old Krafts, machine compressed	2.50	@ 2.75

News—		
Strictly Overissue	.85	@ .90
Strictly Folded	.65	@ .75
No. 1 Mixed Paper	.45	@ .55
Common Paper	.35	@ .40

## CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

Paper		
f o. b. Mill		
All Rag Bond	40	@ —
No. 1 Rag Bond	30	@ 40
No. 2 Rag Bond	18	@ 20
Water Marked Sulphite Bond	11	@ 15
Sulphite Bond	9	@ 11
Sulphite Ledger	14	@ 15
Superfine Writing	23	@ 30
No. 1 Fine Writing	20	@ 27
No. 2 Fine Writing	18	@ 25
No. 3 Fine Writing	11	@ 14
No. 1 M F Book	5 1/2	@ 7
No. 1 S. & S. C Book	6 1/2	@ 7 1/2
Coated Book	8 1/2	@ 10 1/2
Coated Label	8 1/2	@ 10 1/2
News—Rolls, mill	4	@ 5
News Sheets, mill	4 1/2	@ 5 1/2
No. 1 Manila	5 1/2	@ —
No. 1 Fiber	5 1/2	@ —
No. 2 Manila	5	@ —
Putchers' Manila	4 1/2	@ —
No. 1 Kraft	6	@ —
No. 2 Kraft	5 1/2	@ —
Wood Tap Boards	5	@ —
Screenings	3	@ —
Boards, per ton—		
Plain Chip	45.00	@ 47.50
Solid News	50.00	@ 55.00
35 and heavier	55.00	@ 57.50
18 to 24	57.50	@ 60.00
Manila Lined Chip	60.00	@ 65.00
Container Line—		
85 Test	65.00	@ 67.50

## Old Papers

Shavings—		
No. 1 Hard White	3.00	@ 3.25
No. 1 Soft Shav	2.25	@ 2.50
No. 1 Mixed	.90	@ 1.00
No. 2 Mixed	.90	@ 1.00
White Envel. Cut	3.00	@ 3.25
Ledgers and Writings	1.50	@ 1.75
Solid Books	1.25	@ 1.50
No. 1 Books, light	.90	@ 1.00
Blanks	1.65	@ 1.75
Ex. No. 1 Manila Envelope	2.25	@ 2.50
Cuttings	2.50	@ 2.75
No. 1 Manilas	1.20	@ 1.30
Folders News (over issue)	.85	@ 1.00
Old Newspaper	.75	@ .85
Mixed Papers	.65	@ .75
Straw Clippings	.75	@ .85
Binders' Clippings	2.00	@ 2.25
Kraft	2.50	@ —
New Kraft Cuts	2.50	@ —
Roofing Stock, f o. b. Chicago, Net		
Cash—		
No. 1	25.00	@ —
No. 2	23.00	@ —
No. 3	31.00	@ —
No. 4	21.00	@ —

## PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

Paper		
Bonds	10	@ .60
Ledgers	15	@ .40
Writings		
Superfine	15	@ .20
Extra fine	12	@ .22
Line	.20	@ .30
Fine, No. 2	.20	@ .25
Fine, No. 3	.15	@ .20
Book, M F	.06	@ .09
Book, S S & C	.08	@ .15
Book, Coated	.08	@ .15
Coated Lithograph	.10	@ .15
Label	.08	@ .15
News	.05	@ .07
No. 1 Jute Manila	.18	@ .18 1/2
Manila Sul, No. 1	.09 1/2	@ .10
Manila No. 2	.08 1/2	@ .09
No. 2 Kraft	.07	@ .07
No. 1 Kraft	.08	@ .08
Common Bogus	.02	@ .03 1/2
Straw Board	35.00	@ 45.00
News Board	40.00	@ 45.00
Chip Board	30.00	@ 35.00
Wood Pulp Board	90.00	@ 100.00
(Carload Lots)		
Binder Boards—		
Per ton	\$65.00	@ 75.00
Carload lots	60.00	@ 65.00
Tarred Felts—		
Regular	.75	@ .80
Slaters	.80	@ .85
Best Tarred, 1 ply (per roll)	2.00	@ 2.10
Best Tarred, 2-ply (per roll)	1.50	@ 1.60
Best Tarred, 3-ply	2.00	@ 2.10
Bagging		
F o. b. Phila		
Gunny No. 1—		
Foreign	2.25	@ 2.50
Domestic	1.00	@ 1.25
Manila Rope	4.00	@ 4.50
Sisal Rope	.75	@ .80
Mixed Rope	.75	@ .80
Scrap Burlaps	1.00	@ 1.25
Wool Tares, heavy	.45	@ .75
Mixed Strings	.75	@ .80
No. 1, New J. L. Burlap	.75	@ .80
New Burlap Cuttings	1.75	@ 2.10
Old Papers		
F o. b. Phila		
No. 1, Hard White	3.50	@ 3.75
No. 2, Hard White	3.00	@ 3.25
No. 1 Soft White	2.75	@ 3.00
No. 2 Soft White	1.75	@ 2.00
No. 1 Mixed	1.50	@ 1.75
No. 2 Mixed	1.00	@ 1.25

(Continued on page 62)

# Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING, OCTOBER 22, 1921

### SUMMARY

News print	630 rolls
Surface coated paper	60 cs
Cigarette paper	300 cs
Filter paper	100 lbs., 43 cs
Drawing paper	12 cs
Wall paper	1,161 rolls, 2 cs., 1,018 lbs
Printing paper	84 rolls, 194 cs., 44 rolls
Parchment paper	16 cs., 3 rolls
Toilet paper	4 cs
Copy paper	43 cs
Blue print paper	14 cs
Tracing paper	7 cs
Miscellaneous paper	65 cs., 19 rolls

### CIGARETTE PAPER

American Tobacco Co., Breiz Izel, Bordeaux, 300 cs

### FILTER PAPER

E. Fougere, Breiz Izel, Bordeaux, 40 cs  
National City Bank, by same, 31 lbs  
M. Weiss & Co., by same, 69 lbs  
H. Reene Angel & Co., Noordam, Rotterdam, 3 cs

### DRAWING PAPER

H. Reene Angel & Co., Noordam, Rotterdam, 2 cs  
Keuffel & Esser, Dakotan, Hamburg, 10 cs

### WALL PAPER

The Prager Co., Dakotan, Hamburg, 832 rolls  
The Prager Co., Kroonland, Antwerp, 310 rolls  
W. H. S. Lloyd & Co., by same, 1 cs  
Cowan & Sons, Inc., Baltic, Liverpool, 1 cs  
The Prager Co., Lapland, Antwerp, 519 rolls  
R. F. Lang, Minnekahda, Hamburg, 1,018 bales

### PRINTING PAPER

Agar Berussan Corp., Minnekahda, Hamburg, 84 rolls

H. Lips, Kroonland, Antwerp, 105 cs  
C. J. Robinson, Oscar II, Kristiania, 44 rolls  
P. C. Zuhke, Lapland, Antwerp, 99 cs

### PARCHMENT PAPER

F. C. Stryte, Lapland, Antwerp, 16 cs  
F. C. Stryte, by same, 3 rolls

### SURFACE COATED PAPER

L. A. Cassmiller, Noordam, Rotterdam, 54 cs  
P. Puttmann, Kroonland, Antwerp, 6 cs

## NEWS PRINT

Hudson Trading Co., Dakotan, Hamburg, 136 rolls  
National City Bank, Oscar II, Copenhagen, 594 rolls

## TOILET PAPER

F. R. Arnold & Co., Baltic, Liverpool, 4 cs

## COPY PAPER

H. Reene Angel & Co., Lyons Maru, Yokohama, 6 cs  
Japan Paper Co., by same, 37 cs

## BLUE PRINT PAPER

Keuffel & Esser, Mount Clay, Hamburg, 14 cs

## TRACING PAPER

Keuffel & Esser, Mount Clay, Hamburg, 7 cs

## PAPER

Sinclair & Valentine Co., Dakotan, Hamburg, 4 cs  
H. D. Catty & Co., La Bourdonnais, Havre, 33 cs  
Bradford & Co., Minnekahda, Hamburg, 7 cs  
L. Wolff, by same, 20 cs  
N. S. Forwarding Co., Noordam, Rotterdam, 19 rolls  
H. Reene Angel & Co., by same, 1 cs

## RAGS, BAGGINGS, ETC

Allison Trading Co., Baltic, Liverpool, 5 bales rags  
Irving National Bank, Kroonland, Antwerp, 23 bales flax waste  
E. Butterworth & Co., Oshkosh, Londonderry, 696 bales paper stock  
Mechanics & Metals National Bank, Lapland, Antwerp, 412 bales bagging  
B. D. Kaplan, Minnekahda, Hamburg, 49 bales rags  
E. J. Keller Co., Prince Matoka, Bremen, 749 bales rags  
E. J. Keller Co., Eastern Sea, Rotterdam, 687 bales bagging

## OLD ROFF

E. J. Keller Co., Noordam, Rotterdam, 191 coils  
Brown Bros & Co., La Bourdonnais, Havre, 61 coils

## WOOD PULP

Castle Gotthel & Overton, Noordam, Rotterdam, 1,198 lbs

## CHINA CLAY

Hammill & Gillespie, New York City, Bristol, 100 tons  
Reicard Coulston Co., by same, 67 bags  
Moore & Mungel, Lake Frohna, Forney, 1,522 tons, 13 cwt.

## CASFIN

Kallfischer Corp., Martha Washington, Buenos Aires, 4,166 bags

## BLEACHING POWDER

M. Gottesman & Co., Zealand, 269 casks  
M. Gottesman & Co., Kroonland, 65 casks

## BALTIMORE IMPORTS

WEEK ENDING OCTOBER 22, 1921

Hudson Trading Co., Asabeth, 1,040 lbs sulphite pulp

## BOSTON IMPORTS

WEEK ENDING OCTOBER 22, 1921

Agar Berussan Corp., Dakotan, Hamburg, 1,278 rolls news print

## PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 22, 1921

M. Gottesman & Co., Missouri, 200 tons bleaching powder

## CHARLESTON IMPORTS

WEEK ENDING OCTOBER 22, 1921

E. J. Keller Co., West Norranus, Hamburg, 357 bales bagging

## NORFOLK IMPORTS

WEEK ENDING OCTOBER 22, 1921

E. J. Keller Co., Missouri, Antwerp, 709 bales bagging

## Bids for Government Paper

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 26, 1912.—The Purchasing Officer of the Government Printing Office has received the following paper bids.

2,600 pounds green writing paper 22x34—26 Whiting-Paterson Company, Inc., at \$16 per pound; Whiting Paper Company, at \$18; R. P. Andrews Paper Company, at \$094; The Whitaker Paper Company, at \$17; Dobler & Mudge, at \$123; Wilkinson Bros. & Co., at \$1385; Old Dominion Paper Company, at \$1199; Rainbow Paper Corporation, at \$14; Coy, Hunt & Co., at \$163; George W. Millar & Co., Inc., at \$1172; Virginia Paper Company, Inc., at \$16.

50,000 pounds chip board 26x38—No. 50: Dobler & Mudge, at \$0175 per pound; United Paperboard Company, Inc., at \$02125; George W. Millar & Co., Inc., at \$019; Philip Rudolph & Son, Inc., at \$02168; Mathers-Lamm Paper Company, at \$0187; R. P. Andrews Paper Company, at \$012125; Coy, Hunt & Co., at \$0181; The Whitaker Paper Company, at \$03495; C. L. LaBoiteaux Company, at \$01834; Republic Bag and Paper Company, at \$0208

10,000 pounds Binder's Board No. 2 25x30—No. 30: R. P. Andrews Paper Company, at \$0224 per pound; Mathers-Lamm Paper Company, at \$02625; Republic Bag and Paper Company, at \$042; The C. L. LaBoiteaux Company, at \$034; Whitaker Paper Company, at \$0325; George W. Miller & Co., Inc., at \$03525; Philip

Rudolph & Son, Inc., \$03545; Dobler & Mudge, at \$0265; Coy, Hunt & Co., at \$0325

2,000 pounds 17x22—20 No. 20, White Declaration Bond Paper Southworth Corporation, at \$34 per pound, and R. P. Andrews Paper Company, at \$34

75,400 pounds 38x48—58, Opaque Printing Paper The champion Coated Paper Company, at \$0810 per pound; Bryant Paper Company, at \$0825; Dobler & Mudge, at \$0785; R. P. Andrews Paper Company, at \$08; Old Dominion Paper Company, at \$08189; D. L. Ward Company, at \$0815; King Paper Company, at \$0841; Kalamazoo Paper Company, at \$08; Coy, Hunt & Co., at \$0824; The Canfield Paper Company, at \$0775; Reese & Reese, at \$086.

10,000 pounds 25x30—No. 20 Binder's Board. R. P. Andrews Paper Company, at \$0285 per pound; Republic Bag and Paper Company, at \$0407; The C. L. LaBoiteaux Company, at \$0354; Geo. W. Millar & Co., Inc., at \$03625; Philip Rudolph & Son, Inc., at \$03627; Dobler & Mudge, at \$0275; Thos. Barrett Company, at \$0397.

1,000,000 6½x10½—24 Manila Envelopes: Union Envelope Company, at \$275 per M; The U. S. Paper Goods Company, at \$285; J. Josephson & Sons, at \$333; New York Envelope Company, at \$3.10; Old Dominion Paper Company, at \$3.19.

5,000 9½x12—32 Kraft Envelopes: Union Envelope Company, at \$7.25 per M; The U. S. Paper Goods Company, at \$6.45; New York Envelope Company, at \$9.80.

# CONSOLIDATED PAPER BAG CO.

*General Offices:*  
125 Merrimac St., Boston, Mass.

*Factory:*  
Somerville, Mass.



*Manufacturers of*

## PAPER BAGS and SACKS of EVERY DESCRIPTION

Samples submitted on request

Inquiries Solicited

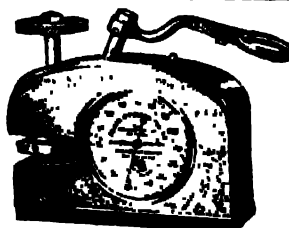
### F. L. Smithe Machine Co. Inc.

MANUFACTURERS OF  
**ENVELOPE MACHINERY**

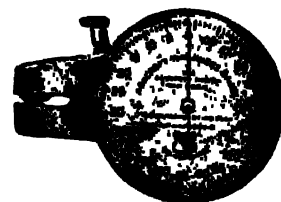
for making any style envelope, regular or special. Printed, stamp embossed and tissue lined envelopes. Also die presses, tension machines, and metal clasp machines, and all other machinery used in manufacturing envelopes.

Designing, pattern making and machine work.

150 Eleventh Avenue, New York City, New York,  
U. S. A.



**The Ashcroft  
Paper Tester**



**The Ashcroft  
Thickness Gauge**

Actual necessities for all those who make, sell or purchase paper in any form. The thousands in daily use testify to their efficiency.

**THE ASHCROFT MFG. CO.**

119 West 40th Street  
New York

29 North Jefferson Street  
Chicago, Ill.

19 High Street  
Boston, Mass.

Canadian Sales Agents: The Canadian Fabric Mills Co., Montreal and Toronto.

JAMES ROSENBERG, Pres. L. W. BOWMALL, Vice Pres.

### AMERICAN WOODPULP CORPORATION

FOREIGN AND DOMESTIC  
**CHEMICAL and MECHANICAL  
WOODPULPS**

*Rags, New Cuttings, Bagging, Etc.  
Chemicals of All Descriptions*

New York—347 Madison Ave.

BRANCHES:  
Stockholm—Sweden  
Helsingfors—Finland

Helsinki—J. B. Woodruff, Inc.  
Kalamazoo—F. D. Haskell  
Dayton—R. R. Reed

## BLEACHED SULPHITE

FOR

Writing, Book and Tissue Papers

### PARSONS Pulp and Lumber Co.

EDWIN J. DEWEY, Manager Pulp Sales

Office, 1807-1810 Finance Bldg.,  
PHILADELPHIA, PA.

Mills at  
PARSONS, WEST VA.

Super Calenders  
Breaker Calenders  
Friction Calenders  
Embossing Calenders  
Hydraulic Presses and Pumps



Successors to the Granger Foundry & Machine Co.

## The Textile-Finishing Machinery Company

Providence, R. I.

## Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,

WEDNESDAY, October 26, 1921

The chemical market has been very steady throughout the week with but few price changes and a substantial volume of business to its credit. Strike prognostications have failed to excite extra heavy buying in this field conspicuous for its firm undertone, while a marked betterment in underlying conditions promises well for the future.

**ALUM**—Orders for small quantities of ammonia alum and potash alum are on hand in sufficient numbers to command a good feeling in this department. The price of ammonia alum remains at from 350 to 375 cents a pound for the lump, 375 to 400 cents for the ground, and 400 to 525 cents for the powdered.

**BLEACHING POWDER**—Bleach powder is in good demand and the supply appears adequate for the present. Domestic bleach is worth 2.25 to 300 cents a pound and foreign bleach worth from 200 to 2.25 cents a pound depending upon quantity.

**BLANC FIXE**—The demand for blanc fixe still improves. The market has been moderately strong now for several weeks which condition points toward coming normalcy. The price stands at \$40 to \$50 a ton depending upon the grade required, and the powdered at from 350 to 375 cents a pound.

**BRIMSTONE**—Sales of large quantities of sulphur have been few of late, but small lots have easily been disposed of at about \$15 to \$16 a long ton at the mines.

**CASEIN**—Considerable casein is coming in from South America at present and the supply from this source will show a marked increase in January and February, and particularly toward the last of March and the first of April when the Argentine flush will be on. Somewhat less than usual will doubtless be imported since the South American dealers have lost a good many cattle due to the last very dry season. What the demand for this casein will be is an unknown quantity but at present it is increasing and the commodity is selling readily. The price is at 800 to 900 cents a pound.

**CAUSTIC SODA**—Contracts for large amounts of caustic soda extending over long periods is the goal toward which the manufacturers are looking. Although this is not realized at present, yet the market is fairly strong and the demand constant. Caustic soda is quoted at 3.25 cents a pound on the basis of 60 per cent.

**ROSIN**—Things continue to improve in the rosin market where the sentiment has cheered perceptibly. The prices are lower than last quoted for grades E and G. Grade E sells at \$5.55, F at \$5.70 and G at \$5.75, ex-yard New York.

**CHINA CLAY**—Reports indicate that the demand for china clay is growing steadily. A good deal of English clay is in the market and finds a fairly ready demand. The domestic clay is quoted at from 650 to 800 for the unwashed grade, 800 to 1000 for the washed, and 1500 to 2200 for the imported.

**SALTCAKE**—The supply of saltcake is less plentiful than formerly in proportion to the somewhat increased demand. The price remains at from \$17 to \$25.

**SATIN WHITE**—A finer tone is the rule with satin white, the price being stationary at 210 cents a pound.

**STARCH**—Globe starch has been in good demand through the week. It is now quoted at \$1.78 a bag.

**SULPHATE OF ALUMINA**—Sulphate of alumina is in good shape with the demand constant and prices firm. The commercial grade is placed at 1.75 to 2.10 cents a pound and iron free at 2.75 to 3.00 cents a pound.

**SODA ASH**—The European market is bare on soda ash, and the demand here is gradually increasing. The domestic sells at 2.20 to 2.50 and the foreign at 1.85 to 1.95.

**TALC**—There is little excitement in the talc market at present. However, good feeling is general in view of improving business. The price of talc is from \$14 to \$18 a ton.

## Market Quotations

(Continued from page 59)

Solid Ledger Stock	2.00 @ 2.25	New Black Soft.	.03 @ .03 1/2
Writing Paper	1.80 @ 2.00	New Light Sec.	.02 1/2 @ .02 3/4
No 1 Books, heavy	1.50 @ 1.75	Khaki Cuttings	.03 @ .03 1/2
No 2 Books, light	1.25 @ 1.50	Corduroy	.02 @ .02 1/2
No. 1 New Manila	2.75 @ 3.00	New Canvas	.08 @ .08 1/2
No 1 Old Manila	1.50 @ 1.75	New Black Mixed	3.00 @ 3.25
Container Manila	.90 @ 1.00		
Old Kraft	2.00 @ 2.25		
Overissue News	.90 @ 1.00		
Old Newspaper	.60 @ .70		
No 1 Mixed Paper	.50 @ .60		
Common Paper	.40 @ .50		
Straw Board, Chip	.40 @ .50		
Binders' Bd, Chip	.40 @ .50		
Domestic Rags—New			
Price to Mill, f. o. b. Phila.			
Shut Cuttings			
New White, No. 1	.09 @ .09 1/2		
New White, No. 2	.05 1/2 @ .06		
Silesias, No. 1	.05 1/2 @ .06		
New unbleached	.08 @ .09		
Washables	.03 1/2 @ .03 3/4		
Fancy	.05 @ .05 1/2		
Cottons—according to grades			
Blue Overall	.05 @ .05 1/2		
New Blue	.02 1/2 @ .02 3/4		

## BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

<b>Paper</b>		Wood, Vat Lined	47.50 @ 50.00
Bonds	.08 1/2 @	Filled News Board	42.50 @
Ledgers	.09 @	Solid News Board	42.50 @ 47.50
Writings	.08 1/2 @	S. Manila Chip	55.00 @
Superfine	.15 @	Pat Coated	.75.00 @
Time	.12 @		
Books, S. & S. C.	.07 1/2 @	<b>Old Papers</b>	
Books, M. F.	.07 @	Shavings—	
Books, coated	.09 @	No 1 Hard White	.03 1/2 @
Label	.10 @	No. 1 Soft White	.03 @
News, sheets	\$4.50 @	No 1 Mixed	.85 @ \$1.00
News, rolls	.04 @	Ledgers & Writings	.02 @
Manilas—		Solid Books	.01 1/2 @
No 1 Manila	\$.70 @	Blanks	.01 1/2 @
No. 1 Fibre	8.00 @	No 2 Books, light	.80 @
No 1 Jute	8.00 @	No 1 Manila	.01 @
Kraft Wrapping	7.00 @	Folded News, over	18.00 @
Common Bogus	3.00 @	Mixed paper	9.00 @
		Gunny Baggings	.01 @
<b>Boards</b>		Manila Rope	.04 1/2 @
(Per Ton Destination)		Common Paper	8.00 @
Chip	\$7.50 @ \$40.00	Old News	1.00 @
News, Vat Lined	42.50 @	Old Kraft	.02 1/2 @

## TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

<b>Paper</b>		Sulphite Bleached	90.00 @ 95.00
(Mill Prices to Jobbers f. o. b. Mill)		Sulphate	70.00 @ 75.00
Bond—		<b>Old Waste Papers</b>	
Sulphite	13 @	(In carload lots, f. o. b. Toronto)	
Light tinted	14 @	Shavings—	
Dark tinted	15 1/2 @	White Env. Cut	3.00 @
Ledgers	14 @	Soft White Book	
Writing	11 @ 15	Shavings	2.80 @
News, f. o. b. Mills—		White Blk News	1.90 @
Rolls (carloads)	4.00 @	Book and Ledger	
Sheets (2 tons or over)	4.85 @	Flat Magazine and	
<b>Book—</b>		Book Stock	
No 1 M. F. (carloads)	10.00 @	(old)	1.15 @
No 2 M. F. (carloads)	9.00 @	Light and Crumpled Book Stock	.90 @
No 3 M. F. (carloads)	8.50 @	Ledgers and	
No 1 S. C. (carloads)	10.50 @	Writings	1.60 @
No 2 S. C. (carloads)	9.50 @	Solid Ledgers	1.60 @
No 1 Coated and litho	15.00 @	Manilas	
No 2 Coated and litho	14.00 @	New Manila Cut	1.85 @
No 3 Coated and litho	13.25 @	Printed Manilas	.70 @
Coated and litho, colored	15.25 @	Kraft	2.25 @
Wrapping—		News and Scrap	
Grey	4.75 @	Strictly Overissue	.85 @
White Wrap	5.25 @	Folded News	.90 @
"P" Manila	5.75 @	No 1 Mixed Papers	.60 @
No 1 Manila	7.50 @	<b>Domestic Rags—</b>	
Fibre	7.25 @	Price to mills, f. o. b. Toronto	
Kraft, M. F. or		Per lb.	
M G	8.75 @	No 1 White shirt cuttings	.08 1/2 @ .09 1/2
<b>Pulp</b>		No 2 White shirt cuttings	.05 1/2 @ .05 3/4
(F. o. b. Mill)		Fancy shirt cuttings	.05 1/2 @ .05 3/4
Ground Wood	\$30.00 @ \$40.00	No 1 Old whites	.03 1/2 @ .04
Sulphite, easy bleaching	70.00 @ 75.00	Thirds and blues	.02 @ .02 1/2
Sulphite, news grade	60.00 @ 65.00	<b>Per cwt.</b>	
		Black stockings	2.00 @
		Roofing stock	
		No 1	1.20 @
		No 2	1.10 @
		Roofing stock	
		Manila rope	.04 @
		No 2	.01 1/2 @
		Gunny bagging	.08 1/2 @

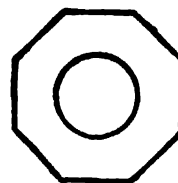
*The Home of Quality*

# PAPER BAGS

## Sacks and Specialties

ESTABLISHED 1881

# SCHORSCH & CO.

*Manufacturers***500 East 133d Street : New York**This Registered Trade  
Mark Octagonon a Paper  
Bag Vouches for  
Its Good Quality

# Buchanan & Bolt Wire Company

ESTABLISHED 1878 AT HOLYOKE, MASS.

Makers of Highest Grade Fourdrinier Wires, Dandy Rolls, Cylinder Covers, Brass Wire Cloth  
of all Meshes for Paper, Pulp and Coating Mills—Quality Guaranteed

We make a specialty of Fine Wires for Magazine and Book Papers

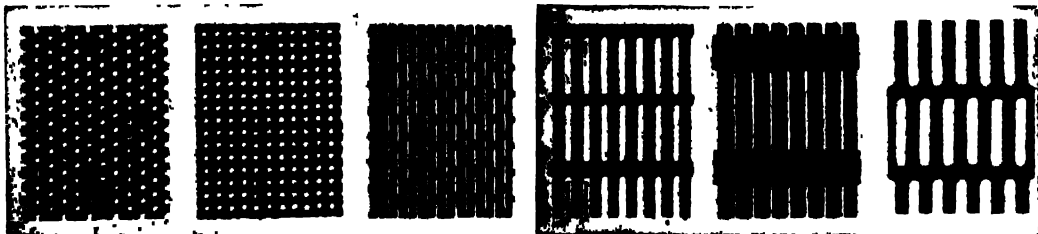
## Felt Test—Lowest Cost per Ton

If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts, for ORR felts will produce the lowest cost per ton. They "stand up" under severe usage. Orr durability is acknowledged everywhere. Their strength and long life are as dependable as their reliability and quality.

In the 32 grades of Felts and Jackets we can match your most exacting demands. Tell us the kind of paper you desire to make, and we will send you samples of felts that will economically serve you and help you to produce paper at lowest cost per ton.

**THE ORR FELT & BLANKET COMPANY, Piqua, Ohio**

## PERFORATED METALS

*All sizes  
and  
shapes  
of Holes**All kinds  
and  
thicknesses  
of Metal*

For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

**The Harrington & King Perforating Company**

618 No. Union Ave., Chicago, Ill., U. S. A.

New York Office, 114 Liberty St.

# WANT AND FOR SALE ADVERTISEMENTS

## CLASSIFIED RATES

Minimum rate for advertisements of 25 words or less, first insertion, \$1.00.

**SITUATION WANTED**, 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words accepted.

**HELP AND MISCELLANEOUS WANTS**, and small For Sale Ads, 4 cents a word for each and every insertion. No ads of less than 25 words accepted.

When answering advertisements, please address the Box Number given in ad.

Answers can be forwarded care Paper Trade Journal, and will be promptly forwarded without extra charge. All should be sent to the New York office, 10 East 39th street. And all should be addressed as the advertisement directs in every case and not simply to the paper.

All classified ads for the current issue must be in hand not later than Monday preceding date of publication.

## HELP WANTED

**WANTED**—Color and Dyestuff Salesman for Middle West by an old established manufacturing and importing concern, to call on the manufacturing trade. Liberal compensation to a successful party. State previous experience, references, age and salary expected. Address, Box 4418, care Paper Trade Journal. O-27

**EXPERIENCED MACHINE TENDER**—Wanted on Cylinder Machine making Box Board. State experience and salary expected. Good job. Steady work. Address, Box 4518, care Paper Trade Journal. N-3.

**WANTED**—Salesmen, Coarse Paper, Twine, etc., by new firm New York Jobber, field unlimited. On commission basis. A good opportunity for right party to grow up with. Communications strictly confidential. Address, Box 4537, care Paper Trade Journal. O-27.

**WANTED**—Two Machine Tenders, experienced in making Saturing and Deadening Felt. Give full particulars. Address, Box 4549, care Paper Trade Journal. O-27.

**WANTED**—Man having experience in selling Toilet Papers to direct sales in Philadelphia and surrounding territory by Philadelphia Paper House not in this line at present. All applications will be treated confidential. Address, Box 4504, care Paper Trade Journal. O-27

**WE WANT** a man of good education and personality, experienced in the merchandising of Stock Paper, to take full charge of sales promotion and detail of the warehouse stocks of one of the largest Manufacturers and Distributors of Paper in the United States, located in the Middle West. The possibilities of this position are unlimited. In applying, give your full history in detail, which will be treated as confidential. Address, Box 4552, care Paper Trade Journal. O-27

**WANTED**—One first class Cylinder Machine Tender on 10 lb Tissue 8 hours. Wages paid \$4.00. Address, Box 4564, care Paper Trade Journal. O-27

## WANTED:

Agent to sell English China Clay to Middle West and Western Paper Mills. Only responsible party in close touch with this trade will be considered. Address Box 4553, care Paper Trade Journal. O-27.

## HELP WANTED

**WANTED**—Experienced Toilet Paper Operator on a Diets or Hudson Sharp Machine, steady good position, future Address, Box 4565, care Paper Trade Journal. O-27

**WANTED**—Paper Salesman, must be acquainted with the trade at large. We represent one of the largest Paper Export Houses in Germany. State the territory you have covered. Strictly confidential. G. A. Spieser, 101 Empire Bldg., Milwaukee, Wisconsin. O-27

**WANTED**—First Class man who thoroughly understands Creping and Colors. Excellent opportunity. State age, married or single, familiar machines, where employed in first letter. Address, Box 4554, care Paper Trade Journal. O-27

**POSITION** will shortly be opened for first class Engineer, one familiar with Steam and Electrical Development. Must have had experience in Pulp and Paper Mill Work. Man with technical education preferred. Replies will be considered absolutely confidential. Permanent position and good salary. Address, Box 4555, care Paper Trade Journal. N-17

**WANTED**—An experienced General Superintendent to take entire local charge of a Modern News Mill with Sulphite and Groundwood Mills. Give full personal particulars, details of experience and operating record. Address, Box 4524, care Paper Trade Journal. N-3

## SITUATIONS WANTED

**SUPERINTENDENT** desires position. 20 years' experience on all grades of Combination and Container Board familiar with repairs, maintenance and operation of every department. Knows how to get quality and production. Can furnish the very best of references. Address, Box 4547, care Paper Trade Journal. U

**PAPER SALESMAN**, New York City, wants connection with Mill Agency Company. Can produce large amount of business, with right kind of cooperation. Drawing account on commission basis. Correspondence invited with responsible agencies. Address, Box 4503, care Paper Trade Journal. U

**MASTER MECHANIC** desires position. Expert Construction, Reconstruction, installing Equipment and Economical Maintenance Ground Wood and Sulphite from the log to finished product. Fourdrinier machines making Book, Bond, News and Specialties. Cylinder Machines making Board, Bristol and Tissue Specialties, using water, steam and electric power. Address, Box 4425, care Paper Trade Journal. D-22.

**POSITION WANTED**—By Superintendent of 20 years' experience in mill making news, Manillas, Water and Dry Finish Fibres. Sulphite and Sulphate Test Papers. Good organizer and executive. Best of references furnished. Address, Box 4461, care Paper Trade Journal. O-27.

**MECHANICAL ENGINEER AND DRAFTSMAN** desires position, 14 years' experience in designing, erecting, planning, estimating, traveling and efficiency engineering. Pulp and Paper Mill. At present employed. Address, Box 4519, care Paper Trade Journal. O-27.

**MACHINE TENDER** of wide experience is looking for position in Paper Mill where production, quality and economy is required. Experienced on Tag, Box Board, Rope Paper, Roofing and Specialties. Address, Box 4530, care Paper Trade Journal. O-27.

## SITUATIONS WANTED

**WANTED**—Position as Paper Mill representative or Mill Salesman in New York City. Have had fifteen years' experience as manufacturer and jobber. Familiar with practically all lines of paper. Address, Box 4551, care Paper Trade Journal. O-27.

**THOROUGH SUPERINTENDENT** desires position, experienced on tissues, all grades Crepe, Semi-Crepe, Toilet, Towels, Napkins, Fourdrinier and Cylinder Machines. High grade man on Kraft and Kraft Specialties, Waxing Tissues, plain and colored, Twisting Fibres, A-1 on Colors. Thoroughly understand the conversion of Waxing Tissues and Colored Crepe Papers. Good organizer. References furnished. Address, Box 4431, care Paper Trade Journal. N-3.

**WANTED**—Position as General Superintendent or Superintendent, by a practical Pulp and Paper Maker who has been very successful in handling help and getting results. Am at present engaged as General Superintendent in a four machine Mill, also Sulphite and Ground Wood. Fast running News, Bag and Specialties. Address, Box 4540, care Paper Trade Journal. O-27

**SITUATION WANTED**—Swedish Chemical Engineer, graduated from University and with two years' experience as Sulphite Engineer in Sweden, desires position as Chemist. Address, Box 4541, care Paper Trade Journal. O-27.

**SUPERINTENDENT**; now employed, would like to make change. Understands thoroughly the Cylinder Machines. Making high grade Box Board. Tests, Containers, and Fourdrinier specialties. Good on Construction, repairs and installations of all kinds of machinery connected with Paper Mills. Can give best of references as to my ability to get production, organize and handle help. Address, Box 4529, care Paper Trade Journal. O-27.

**WANTED POSITION** as assistant Superintendent or Tom Rowe. Would consider running Machine. Have had 17 years' experience on Box Board Machines and Combination Boards, and well up on High Test Containers. Address, Box 4499, care Paper Trade Journal. N-3

**YOUNG MAN**, 24 years old, desires connection with Paper House in New York City or vicinity. Possesses general knowledge of Writings, Bonds, Coarse Papers, etc., also two years' mill experience in all branches of cost accounting. Capable of filling position in Accounting or Sales Department. Address, Box 4475, care Paper Trade Journal. N-17

**ASSISTANT SUPERINTENDENT** or Beating Engineer, nine years' factory and executive experience, graduate Mechanical Engineer. Several years' training in effecting improvements and economies in paper and pulp Mills, followed by having charge of Maintenance, construction and economies in 10 Machine Mill with Ground Wood, Sulphite, and Coating Departments. Best references. Address, Box 4556, care Paper Trade Journal. O-27

**SUPERINTENDENT** or Assistant desires position. Experienced on Grease-proof, Glassine, Waxing Papers and all kinds of Tissues. Address, Box 4557, care Paper Trade Journal. N-10

**PAPER BUYER AND CORRESPONDENT** desires position. Familiar with all grades, sources of supply, etc. Three years with prominent Paper Exporters. Knowledge of Spanish and Stenography. Address, Box 4558, care Paper Trade Journal. N-3

**PAPER SALESMAN** desires position. Has handled Printings, Writings, Wrappings and some Specialties. Three years with large Paper House. Address, Box 4555, care Paper Trade Journal.

## SITUATIONS WANTED

**SUPERINTENDENT**—Man thoroughly experienced in manufacture of Box Board wants position as Superintendent. Excellent color man, understands construction, 25 years' experience. Address Box 4560, care Paper Trade Journal. N-3

**MASTER MECHANIC** desires new position with reliable company. Expert on Fourdrinier or Cylinder Machines. Has been successful as Boss Millwright. Best references furnished on request. Address, Box 4561, care Paper Trade Journal. O-27

**A BUYER** who has managed Sales for twenty years and who knows how to write buying and selling letters, would like to talk with manager of aggressive concern. Address, Box 4562, care Paper Trade Journal. O-27

## MISCELLANEOUS

**WANTED**—2 Pocket Grinders, 54" diameter. Ring Oiling. 2 Stone Sharpening Devices. 2 6" Centrifugal Stock Pumps. 1 Pressure Filter, capacity 500,000 gallons, 24 hours. 1 60 lb. Pressure Pump, direct connection to motor, 200 gallons minute, 3 phase, 60 cycle, 600 volts. Address, Box 4544, care Paper Trade Journal. O-27

## FOR SALE

**FOURDRINIER PART** One 96" P & J Fourdrinier part with Millsapugh suction couch roll and pump, 40 ft. wire.

**JORDANS**—Several Horne and Emerson on way to our works. One Noble & Wood; two No. 1 Claflins.

**KOLLERGANGS**—One kollergang; size of stone 36" x 15" face.

**PULLEYS**—One 97" dia. x 34", double arm, modern pulley. Large cone pulleys. Large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches. Also steel pulleys.

**PUMPS**—One dry suction, single vacuum, 12 x 22 x 18 Knowles; one 1,000 gallon Blake Tank Pump; several 7" and 8" Lawrence Machine Company, Class A, High Duty Pumps; Fan Pumps, new stock pumps, single and double.

**PRESS ROLLS**—Large number of different sizes on hand. Some suitable for rubber covering. Six rolls about 15" x 98" just received. Some brass and some rubber covered.

**ROTARIES**—Two 84" x 22" horizontal.

**REELS**—One two-bowl 58" face. Several new ones going through works. State which you desire.

**RAG CUTTERS**—One Daniels No. 2; one Taylor & Stiles.

**SLITTERS**—Two Dietz Slitters.

**SCREENS**—One 12-plate open side Packer with plates; one 12-plate open side Packer with practically new plates. Three Ruth centrifugal.

**WINDERS**—One 80" single drum P & J make; one 100" double drum, P & J make.

Advise us of your wants

**MILLS MACHINE COMPANY**  
LAWRENCE, MASS.

## MISCELLANEOUS

**WANTED**—Three Beaters, preferably iron tub, capacity 1,000 lbs. to 1,500 lbs., double lighter construction without washing cylinders. Also three Jordans, about 20 tons capacity each. Address, Box 4546, care Paper Trade Journal. N-3

**WANTED TO BUY**—A 48, 50 or 54-inch Paper Cutter, Seybold or Dayton preferred. Give full particulars in first letter. Address, The Paper Novelty Company, Green Bay, Wisconsin. N-10

**WANTED**—One good sized Heavy Duty Rag Cutter. Give complete details and price with your offering. Oertel Roofing Mfg. Co., East St. Louis, Ill. N-3

## AM INTERESTED IN USED MACHINE

MAKING FINE SERRATED OR STRAIGHT CUT BAGS FOR CANDY, SALTED PEANUTS, ETC. WITH PRINTING ATTACHMENT. RECENT MAKE PREFERRED OR WILL PURCHASE OUTRIGHT SMALL GROWING PLANT MAKING THESE STATE CAPACITY OF MACHINE. PRICE, ETC. ADDRESS, BOX 4510, CARE PAPER TRADE JOURNAL. O-27

## FOR SALE

**FOR SALE**—14 Calendar Rolls, 58" face, 8" to 16" diameter. 2 No. 1 Claflin Engines. 1 small Jordan Engine. 1 6" Horizontal Water Pump. 2 Air Pumps. 5 Dryers, 48" diameter and 120" face, complete with frames and gears. Complete triple-deck frames for 44 Dryers. Will arrange terms to suit. Chesapeake Paper Board Co., Baltimore, Maryland. N-10

**FOR SALE**—Roofing and Saturating Machines, 72"x36" wide. Chilled steel rolls. Also Painter Mixing Machine, Grinders, etc. Address Box 4310, care Paper Trade Journal. N-10

**FOR SALE**—9 Dryers, 28" x 52", complete with frames, felt and rolls, gears, two cone pulleys and steam connections. Address, Box 4386, care Paper Trade Journal. N-10

**FOR SALE**—Two Hoffman Couch Rolls, seventy-eight inches in diameter, need re-covering. Address, Box 4548, care Paper Trade Journal. N-10

**COAL**—Moshannon and "E Seam" bituminous coals, low sulphur, low ash. Lowest freight rate east and north. \$2.35 net ton, f.o.b. mines. Halden-Kelley Coal Company, 209 Market St., Clearfield, Pa. N-10

## FOR SALE

**SWEDISH PRINTING PAPER**—good quality, below market price. Rolls—25½ inch broad, 400 tons. Sheets 22½ x 33 inches 89 tons, and 36½ x 55 inches, 116 tons. Address, Box 4563, care Paper Trade Journal. O-27

**FOR SALE**—Paper Cutting Plant. One 40" Kidder Slitting Machine, one 48" Hamblet Sheetor and one 38" Jones Undercut Powder flat cutter Machine. Address, P. O. Box 300, Emerson, New Jersey. O-27

**FOR SALE**—4 Worthington Duplex Pumps, Size 16" x 25" x 22" x 24", Bronzed lined, in good condition, capacity 4,300 g.p.m. 1 Laidlaw Compound Air Compressor, Size 12, 22" x 15½" x 18", cylinder 629 cubic ft. per revolution. 1 Nordberg Engine, 350 h.p. at 140 W. Pressure. Size 18 x 36. Also a large number of Cypress tanks suitable for stock tanks at less than the cost of wood. Address, Box 4566, care Paper Trade Journal. O-27

## Rebuilt Paper Mill Machinery

-In Stock and Guaranteed  
Not Where Is and As Is

**FOURDRINIER PAPER MACHINE**: One 112", one 96", one 72".

**FOURDRINIER PARTS**: Pusey & Jones 137", 118", 112", 104".

**PRESS PARTS FOR PAPER MACHINES**: Pusey & Jones Bell Crank housing two sets 18" x 114", three sets 18" x 110", two sets 18" x 96", Black & Clawson Swing Arm housings with rolls.

**DRYERS** Four 48" x 111", sixteen 48" x 100", ten 48" x 68", one 84" x 67".

**MARSHALL DRIVES**: 8 Black & Clawson self-contained stand with friction clutch cone pulley and 6" x 7" mortise gears. Mortise gears and pinions for Pusey & Jones Marshall drives 5" to 8" face.

**CHILLED CALENDERS**: One 66" face, five roll; one 41" face, five roll.

**DILLO DOCTORS**: for Machine Calenders 80" to 120" face.

**SLITTERS AND WINDERS**: One 120" Warren, one 82" Pusey & Jones two drum, one 108", 44", 36" Kidders.

**REELS** Pusey & Jones two drum upright 84" to 114".

**BEATERS**: Six 72" x 42" Noble & Wood, four 66" x 42" Noble & Wood, equipped with three-cylinder washers; one Dilts 62" x 30" iron tub, one Jones 62" x 52", eight Horne 36" x 36".

**JORDANS**: One Wagg Majestic, three No. 2 Dillon Improved, one Large Horne, five Monarch, one Pony Monarch, two Pope Brushing Engines.

**SCREENS** Four 12-plate open-side Packer.

**STUFF PUMPS** Deane Triplex 8" x 12", Gould Triplex 8" x 10", Sandusky Triplex 4" x 6".

**REVOLVING SHEET CUTTER**: One 104" Horne, one 84" Clark, one 74" Finlay, one 50" Hamblet Diagonal, two 42" Finlay.

**WET MACHINES**: Four 72" Bagley & Sewall Hydraulic.

**FRANK H. DAVIS COMPANY**

175 Richdale Avenue  
CAMBRIDGE, 40, MASS.

## A BUDGET COST SYSTEM FOR PAPER MILLS

Price (to Non-Members) \$10

Cost Association of the Paper  
Industry

18 East 41st Street, New York City

Nov. 3

## MODERN PULP and PAPER MAKING

A Practical Treatise by G. S. Witham, Sr.

The first practical book by an acknowledged authority on the manufacture of pulp and paper as it is carried on in America today.

Profusely Illustrated. Bound in Buckram.

\$6.00 per Copy in U. S. and Canada. \$6.50 in Foreign Countries. Send your orders to

Lockwood Trade Journal Co., Inc.  
10 East 39th St., New York, N. Y.

## Francis Hughes Company

Packers and Graders of

### Paper Mill Supplies

Correspondence Solicited

21st Street at Loomis, Chicago, Ill.

Private Switch on C. B. & Q. Tracks

## E. J. KELLER COMPANY

INCORPORATED

200 FIFTH AVENUE

NEW YORK

FOREIGN AND DOMESTIC  
PAPER MAKERS' SUPPLIES  
CHEMICAL AND MECHANICAL PULPS  
COTTON, JUTE AND FLAX WASTES  
EAST INDIA MERCHANDISE

## Paper Executive Wanted

A POSITION with a big future in an old established firm is open to a man who can qualify as General Manager of Paper department. The man we want must be an experienced executive, thoroughly familiar with requirements of big paper buyers,—especially newspaper publishers. This is an exceptional opportunity and applicants are requested to write fully regarding experience, compensation expected, etc. All correspondence will be treated in strict confidence. Address Box 4535, care Paper Trade Journal.

(127)

## NORWOOD PAPER FINISHING MACHINERY

Write for Information

NORWOOD ENGINEERING CO.  
Florence, Mass., U. S. A.

## PAPER and BOARDS ALL GRADES

Direct Mill Service to the Paper Merchant

*Boston Hill Company*

INCORPORATED

501 Fifth Avenue at 42nd Street  
NEW YORK CITY

ESTABLISHED 1842

## FOURDRINIER WIRES

DANDY ROLLS  
CYLINDER  
MOLDS

**CHENEY BIGELOW WIRE WORKS**  
SPRINGFIELD, MASS.

MANUFACTURERS

Paper Mill Wire Cloth, Bank  
and Office Railings and Grill Work

**Architects and Engineers**

**CAREY, JAMES L.**, Paper Mill Architect and Engineer, 208 North Laramie avenue, Chicago, Ill.

**CHAPMAN, C. A., Inc.**, Paper Mill Architects and Engineers, 28 Jackson Boulevard E., Chicago, Ill.

**SNOW, S. M.**, Mill Architect, Engineer, Paper and Pulp Mills. Steam and Water Power Plants, 65 Kilby street, Boston, Mass.

**Rags, Paper Stock, Etc.**

**BERLOWITZ, PAUL**, 123 Nassau street, New York. Importer of Rags, Ragging, New Cuttings.

**FLYNN, MICHAEL**, 64 Columbia street, Brooklyn, N. Y.

**GOLDSTEIN, R. & SON**, 1163 Scott Street, Baltimore, Md. Cotton Rags and Paper Stock

**HILLS, GEO. F.**, 236 South Street. Branch House, 276 W. 25th street, N.Y.C.

**LIVERPOOL MARINE STORE CO.**, Liverpool, England. L.M.S. Wood Tag, Manila Rope and Star Brands (Registered)

**SIMMONS, JOHN, SONS**, Paper and Paper Stock, 28 and 30 South Marshall street, Philadelphia, Pa.

**MISCELLANEOUS****Bale Ties**

**WILSON, H. P. & H. F.**, Manufacturers of Steel Wire Bale Ties, for baling all compressible material. 544 West 22nd street, New York City.

**Boards**

**MILLER PAPER CO., FRANK P.**, high grade specialties. Boards. East Downingtown, Pa.

**Special Machinery**

**SWIFT, GEORGE W., JR.**, Designer and Manufacturer of Special Machinery for Manufacturing and Printing Paper Goods Bordentown, N. J.

**BOOKS ON PAPER MANUFACTURE**

Subscriptions are being taken for the new Textbooks on the Manufacture of Pulp and Paper of the Joint Committee on Vocational Education of the Pulp and Paper Industry, a complete set of which should be owned by every firm or individual connected with the industry.

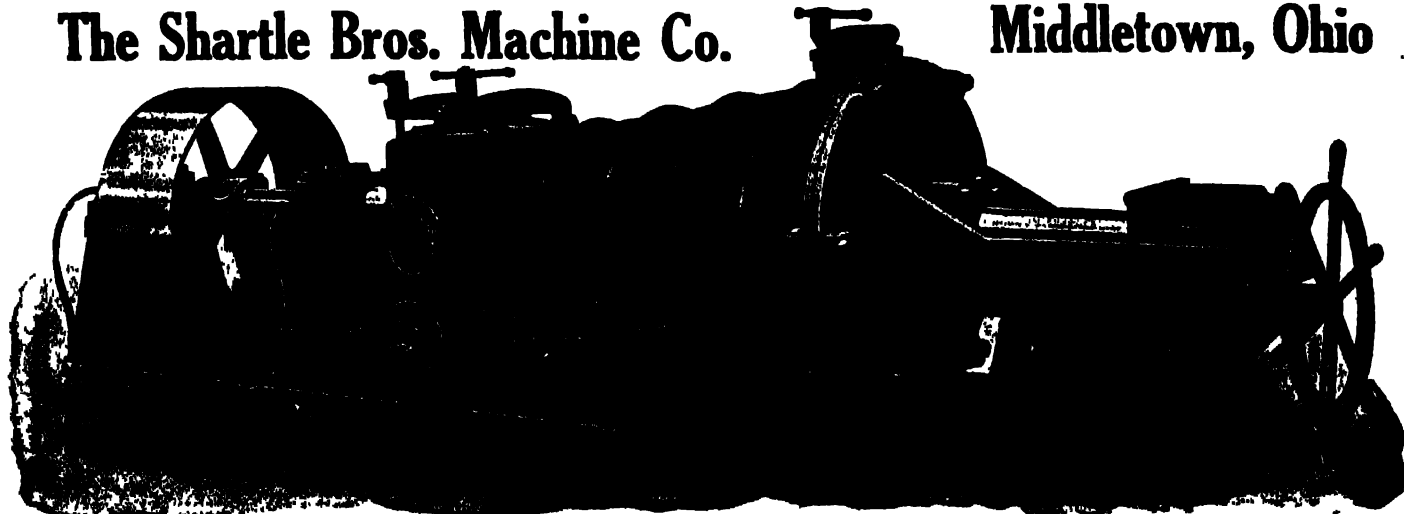
The set will be complete in five volumes. Volumes I and II deal with arithmetical operations, elementary mathematics, drawings, etc. Volumes III, IV and V, to be issued shortly, will deal with pulpwoods and their preparation; manufacture of pulp; analytical methods; and paper manufacture in all its aspects.

Volumes I and II are now on sale at \$5.00 a volume. In the selection of classroom problems bearing on the principles and practice of pulp and paper manufacture they represent the highest standard in textbook publishing.

Orders, with remittances, will be filled by the Technical Association of the Pulp and Paper Industry, 18 East Forty-first Street, New York.

**CENTRAL MANUFACTURING COMPANY****THE QUICK SERVICE HOUSE****KALAMAZOO, MICH.**

Manufacturers of

**High Grade Brass and Bronze Screen Plates and Dandy Rolls****OLD PLATES  
CLOSED AND RECUT****DANDY ROLLS AND  
WATER MARKING****Secure Our  
Prices****We Can  
Please You****The Shartle Bros. Machine Co.****Middletown, Ohio**

**FREDERICK L. SMITH**

21 EAST 40TH STREET, NEW YORK

**PULP AND PAPER MILL  
ENGINEER****GEORGE F. DREW****MILL ARCHITECT AND ENGINEER****BRUNSWICK, MAINE**

For the past 22 years Chief Engineer for the Fajonnet Paper Co.

**SPECIALTY: Pulp, Paper and Saw Mills**Cotton, woolen, worsted, cordage, silk mills, and their equipment.  
Appraisals, adjustments.**V. D. SIMONS****INDUSTRIAL ENGINEER**Pulp and Paper Mills, Hydro-Electric and Steam Power Plants  
Electrification Paper Mill Properties

39 S. La Salle St., Chicago

**THOMAS L. TOMLINES & SON****CONSULTING ENGINEERS**ASSOC. M. AM. SOC. C. E.; 317-319 CITY BANK BLDG.,  
M. AM. SOC. M. E. SYRACUSE, N. Y.Paper, Pulp and Fibre Mills, Hy- Steam Power Plants, Plans and  
draulic Developments, Hydro- Specifications, Efficiency  
Electric Plants Engineering**CONSULTATION AND REPORTS****HARDY S. FERGUSON CONSULTING  
ENGINEER**Member AM. SOC. C. E., Member AM. SOC. M. E.,  
Member Eng. Inst. Can.

200 FIFTH AVENUE, NEW YORK CITY

Paper, Pulp and Fibre Mills, Including Building and Complete  
Mechanical Equipment, Water Power Development, Dams,  
Storage Reservoirs and Other Hydraulic Structures,  
Examinations, Reports, Estimates of Cost, Designs,  
Specifications, Valuations**H. B. PRATHER****CONSULTING ENGINEER****CONSULTATIONS REPORTS ESTIMATES**Complete Designs Pulp and Paper Mills—Steam and Electric  
Power Plants—Equipments

600 ROCKEFELLER BLDG., CLEVELAND, OHIO

**GEORGE F. HARDY**M. AM. SOC. C. E., M. AM. SOC. M. E., M. ENG. INST. CAN.  
*Mill Architect and Consulting Engineer*

Langdon Building, 309 Broadway, New York

**SPECIALTY:** Paper, Pulp and Fibre Mills, Water Power Develop-  
ments, Steam Power Plants, Plans and Specifications  
Evaluations, Reports, ConsultationCable Address: "Hardistock," A B C 5th Edition, Bedford, McNeill.  
Western Union—Bentley's.**WILLIAM T. FIELD***Consulting Engineer*206 Broadway,  
New York, N. Y.Flower Bldg.,  
Watertown, N. Y.**DESIGNS****ESTIMATES****REPORTS****J. H. WALLACE  
& COMPANY.**TEMPLE COURT BUILDING  
NEW YORK CITY, U.S.A.  
CABLES, TRIPLEX, N.Y.**PULP  
AND  
PAPER  
ENGINEERS  
& CHEMISTS****INDUSTRIAL DESIGN  
PLANT IMPROVEMENT  
LABORATORY TESTS****VITALE & ROTHERY****FOREST ENGINEERS**

527 Fifth Avenue

New York, N. Y.

**JOHN F. CARRIGAN****Industrial Power Engineering, Cunard Bldg., Chicago**Estimates, Reports  
Detail Plans  
Construction of New and  
Remodeling Old PlantsModern Steam Installations  
Electrifying and Motorising  
Complete Plants**Manufacturers of Carrigan Hand Stokers****TIMBERLAND SERVICE**

Estimates

Maps

Graphic Methods

**JAMES W. SEWALL, Forest Engineer**

Old Town, Me. Sanford, Fla. Munsey Bldg., Washington, D. C.

*Largest Cruising House in America***Timber Lands Bought and Sold.  
Timber and Pulp Wood Estimates.****R. R. BRADLEY,***Consulting Forester*

58 Telegraph Building, Hospital St., Montreal, P. Q.

**HERBERT S. KIMBALL**

M. Am. Soc. C. E.

**CONSULTING ENGINEER**

79 Milk Street, Boston 9, Mass.

Investigations and reports relating to the pulp and paper industry. Special atten-  
tion to the design of chemical equipment in Sulphite and Soda mills. Paper  
machine room construction and ventilation, plans for buildings and equipment.**SANFORD RILEY STOKER CO.**  
WORCESTER, MASS**RILEY  
STOKERS**

BOSTON

NEW YORK  
CINCINNATI

"A type to meet every stoker need"

PHILADELPHIA  
CHICAGOPITTSBURGH  
ST. PAUL**MURPHY IRON WORKS**  
DETROIT, MICH**MURPHY  
FURNACES**

BUFFALO

DENVER

CLEVELAND

**THE**  
**MANAGEMENT ENGINEERING AND DEVELOPMENT Co.**  
 7TH FLOOR CITY NATIONAL BANK BLDG.,  
 DAYTON, OHIO.

**DESIGN, CONSTRUCTION AND OPERATION**  
 OF  
 • PULP, PAPER AND FIBRE MILLS  
 WATERPOWER DEVELOPMENT  
 STEAM POWER PLANTS.

PLANS AND SPECIFICATIONS  
 EVALUATIONS AND REPORTS  
 • • CONSULTATIONS • •



**"HYTOR" Air Compressors,  
 VACUUM PUMPS and  
 DRYER EXHAUST UNITS.**  
**THE NASH ENGINEERING CO.**  
 Wilson Point Road, SOUTH NORWALK, CONN.

### **SHERMAN PAPER COMPANY**

Manufacturers of Roll Newsprint. H. W. & W. Process

*Entire Product for 1921 Contracted*

Mills at Felts Mills, Great Bend & Lefebvre, N. Y.  
 Main Office, Trust Co. Building, Watertown, N. Y.

Manufacturers  
 of  
 All Special  
 Small Roll  
 Products



Adding  
 Machine,  
 Cash Register,  
 Die Wiping,  
 Hand Rolls,  
 Etc., Etc.

**PAPER MANUFACTURERS CO., Inc., Phila., Pa.**

### **STEBBINS ENGINEERING & MFG. CO.** **WATERTOWN, NEW YORK, U. S. A.**

*Manufacturers of*

**STEBBINS ACID SYSTEMS  
 DIGESTER LININGS,  
 BRONZE, LEAD AND  
 IRON FITTINGS, SUL-  
 PHUR MELTERS, BURN-  
 ERS, COMBUSTION  
 CHAMBERS AND RE-  
 CLAIMERS, BLEACHING  
 SYSTEMS.**

**SPECIALTIES**

We design, build, com-  
 pletely equip and put into  
 operation

**PAPER, SULPHITE  
 AND SODA PULP  
 MILLS**

*PACIFIC COAST  
 REPRESENTATIVES*  
**SCOTT & MORGENIER**  
 164 Bacon Bldg., Oakland, Cal.

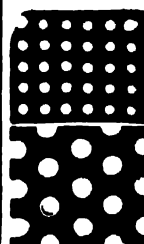
### **SLITTERS and SPECIAL MACHINES**

for use in paper industry

**C. BENNINGHOFEN & SONS**

Hamilton, Ohio

Send us your requirements regardless of what they may be.



### **MANHATTAN PERFORATED METAL CO.**

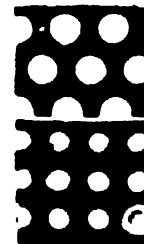
Office and Works: 237-239 Centre St.,  
 New York

#### **PERFORATORS**

of COPPER, BRASS, ZINC, ALUMINUM,  
 TIN, STEEL, IRON, Etc.

Write for Copper, Brass, Tin or  
 Aluminum Catalog.

Brass and Copper Centrifugal and  
 Juice Strainer Plates a Specialty



### **FOXBORO**

Foxboro Records help you to improve your prod-  
 uct. Tell us your requirements. We will tell you  
 how we can help you. Ask for Bulletin BB-194.  
 The Foxboro Co., Inc., Foxboro, Mass.

### **RECORDS**

118-5

### **BELLE ALKALI COMPANY, Belle, W. Va.**

**PURE CHLORINE**

In cylinders and tanks

**BELLE  
 BRAND**

**CAUSTIC SODA**

76%—Solid and Flake

**Arnold Hoffman & Co. Inc., Sole Agents,**

PROVIDENCE BOSTON NEW YORK  
 PHILADELPHIA CHARLOTTE

**R. L. STEVENS, Jr., Woolworth Building, New York**

**EXCLUSIVE EASTERN REPRESENTATIVE OF THE RHINELANDER PAPER COMPANY**

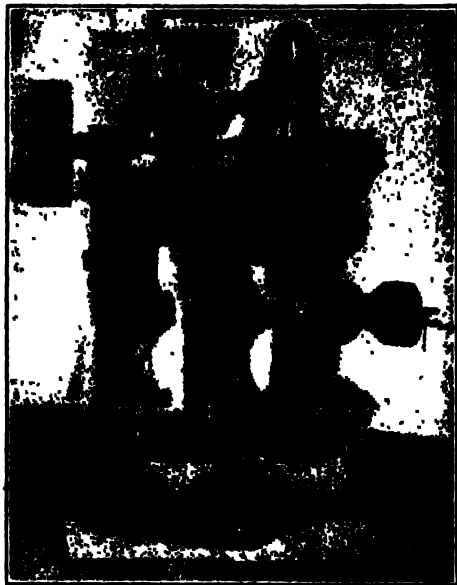
Glassine, Greaseproof, Manifold Parchment, Dry Finish Butchers', Machine Glazed Sulphites, 10 to 40 lb. basis, Special papers for Creping and Waxing, together with other Specialties; general line of Wrappings.

**LAWRENCE THE LAWRENCE BAG COMPANY**  
**GROCEPS' BAGS MIAMISBURG, OHIO**

## The Black-Clawson Co.

Hamilton, Ohio

Builders of All Types of Paper Making  
Machines and Machinery

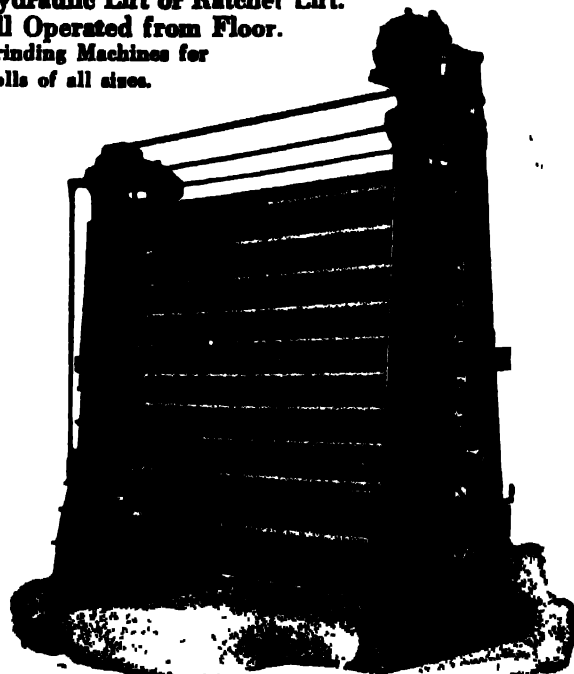


for  
**PAPER**  
and  
**PULP**  
**MILLS**

*Successful machines in operation are proof  
our work is built right.*

## CALENDERS

Furnished Complete, with Electric Motor Lift,  
Hydraulic Lift or Ratchet Lift.  
All Operated from Floor.  
Grinding Machines for  
Rolls of all sizes.



**LOBDELL CAR WHEEL CO.**  
Wilmington, Del., U. S. A.

## FARREL

**Roll  
Grinders**



For the sake of your  
product regrind your  
used worn rolls on a  
Farrel roll grinder—a  
heavy, sturdy instrument  
of precision—we have  
made and used them our-  
selves for years.

*Farrel calen-  
ders and chilled  
rolls are known  
for the highest  
in quality*

*We are the  
largest makers  
in the world  
of these prod-  
ucts*

*Write for Bulletin L-755*

Established 1848

**Farrel Foundry & Machine Company**

Ansonia, Conn., U. S. A.

Branch Plant: Buffalo, N. Y.

## Dietz Toilet Paper Machinery

AND LATEST IMPROVED PATENTED

### Automatic Tube Machines

For Making Tubes for Toilet  
Paper Rolls, Paper Towel Rolls

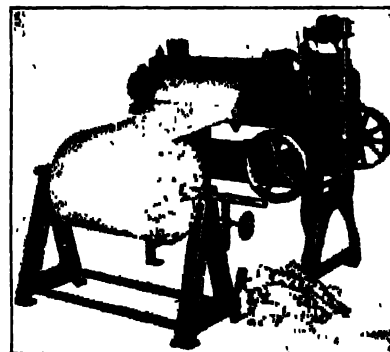
Capable of pro-  
ducing 3,600

**Toilet  
Tubes**

per hour direct  
from roll.

**Towel  
Tubes**

are made at rate  
of 1,800 per hour.  
Substantially built  
and fully guaran-  
teed.



Patented Feb. 22, 1916, May 18, 1920

Toilet Paper Machines for making Toilet Rolls with or without  
perforations and machines for making Sanitary Crêpe Paper  
Towels, Punch Presses for Sheet Toilet Paper, Drop Roll Slitters,  
Slitting and Rewinding Machines, Side and Center Seam Mer-  
chandise Envelope Machines, Photo Mount Beveling Machines,  
Candy Bag Machines, Punch Presses for Playing Cards, Rotary  
Card Cutting and Collating Machines, Etc.

**DIETZ MACHINE WORKS**

126-128 Fountain Street

PHILADELPHIA, PA.

Corner Waterloo St., Below Diamond St., Bet. Front and 2d Sts.

# BAKER MANUFACTURING CORPORATION

Formerly Baker & Shevlin Co.

Manufacturers of

A general line of paper and pulp making machinery including:

Automatic Magazine Grinders (owners of all U. S. patents)

Bronze and White Metal Valves for Sulphite Mills

Bronze and White Metal Pipe and Fittings for Sulphite Mills

Centrifugal Screens—Horizontal and Vertical

Centrifugal Pumps

C. Bache Wiig Barking Drum

Cylinder Moulds

Decker Machines or Pulp Thickeners

Feeney Automatic Stock Regulator

Kneaders

Monarch Diaphragm Screen

Paper Making Machines—Cylinder and Fourdrinier

Paper Machine Screens—Horizontal Rotary

Pulp Refiners

Ramsey Patent Grinder Valves

Sliver Screens

Wet Machines

Winder Shafts

Worm Washers

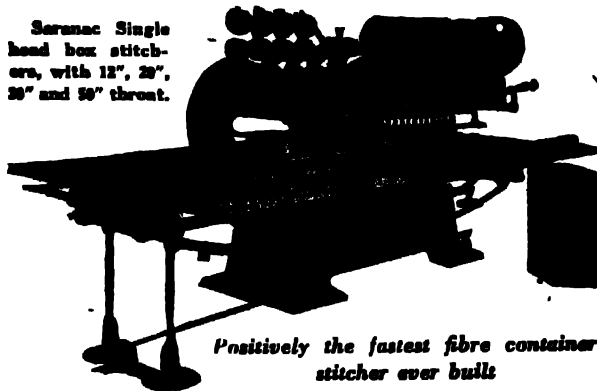
Worm Knotters

Baker Manufacturing Corporation

Saratoga Springs, N. Y.

## 25 to 40 shipping containers per minute can be made on a Saranac Automatic Multiple Head Stitcher

Saranac Single head box stitchers, with 12", 20", 28" and 36" throat.



*Positively the fastest fibre container stitcher ever built*

IT is equipped with twelve stitching heads, so that any number from 1 to 12 staples can be driven at one time. Either a single or double row of staples, or single row with the tie stitch, are automatically driven. It takes less than five minutes to change from the largest to smallest size containers.

*Write for Full Particulars.*

We also manufacture Bottom Sealing Machines.

**Saranac Machine Company**

Benton Harbor, Michigan

**WE MAKE  
BEATERS AND  
JORDANS OF  
QUALITY**

**SIX SIZES OF  
JORDANS,  
BEATERS,  
FROM ¾ LBS.  
TO 3000 LBS.**



**The Noble & Wood Machine Co., Hoosick Falls, N. Y.**

## SUPERIOR CHEMICAL CO.

JOLIET, ILLINOIS

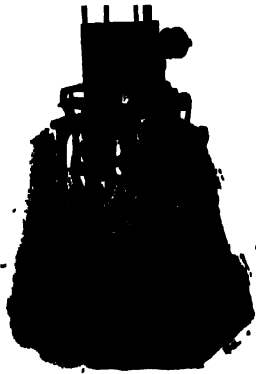
Manufacturers

PAPER MAKERS' and FILTER  
**ALUM**

Established 1895  
**DANIEL M. HICKS**  
(INCORPORATED)

## PAPER MILL SUPPLIES

200 Fifth Ave., New York



### GRISSINGER Patented AUTOMATIC TUBE MACHINE

Wire Stitched Tube  
TOILET PAPER  
MACHINERY

GRISSINGER MACHINE WORKS  
PHILADELPHIA, PA.

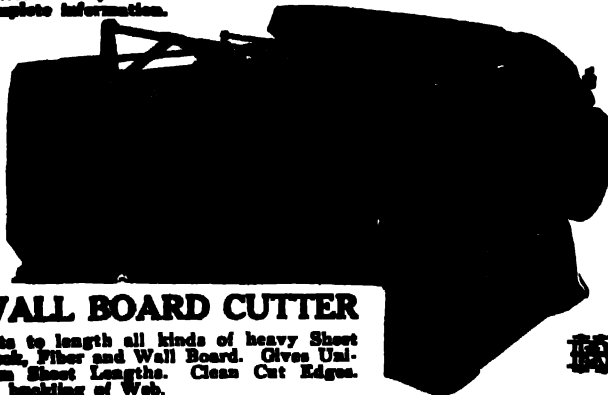
Patented { June 24, 1913,  
August 10, 1915

## ALUM

FOR THE PAPER MAKER  
Manufactured by  
The Jarecki Chemical Co.  
**QUALITY SERVICE**  
Sole Selling Agents

**ISAAC WINKLER & BRO.**  
CINCINNATI :: :: NEW YORK

Write today for  
complete information.



### WALL BOARD CUTTER

Cuts to length all kinds of heavy Sheet  
Board, Fiber and Wall Board. Gives Uni-  
form Sheet Lengths. Clean Cut Edges.  
No backing of Web.

M. D. KNOWLTON CO., 22 Elizabeth St., Rochester, N. Y., U. S. A.

**The Pulp and Paper Trading Co.**  
21 East 40th Street New York City

**DEALERS IN DOMESTIC CHEMICAL AND  
MECHANICAL PULPS AND PAPER**

AGENTS FOR

J. & J. Rogers Company, Ausable Forks, N. Y.  
Ware Coated Paper Company, Ware, Mass.

Procter & Gamble Distributing Co.

Mills at Augusta, Georgia, and Memphis, Tenn.

Canadian Kraft Limited, Three Rivers, Canada  
Dealers in Wayagamack Kraft Pulp

**EASTERN AGENTS of Sulphite Pulp. Made by  
Port Huron Sulphite & Paper Co., Port Huron, Mich.**

FOREIGN and DOMESTIC  
Paper Stock  
New Cuttings  
and Rags

**CASTLE, GOTTHEIL & OVERTON**

Jute Stock  
Sizing, Sulphite  
and Soda Pulps

200 FIFTH AVE. NEW YORK

## "DRAPER" FELTS

For Any Grade of Paper or Pulp

## ARE GUARANTEED

To Give Entire Satisfaction

MANUFACTURED BY

**DRAPER BROS. CO., CANTON, MASS.**

**WE** specialize in durable Fourdrinier Wires and Cylinder Wires in any metal desired up to and including 120 mesh in plain woven, double warp, triple chain, and twisted weaves.

Save two-thirds the cost and three-quarters of the expense of putting on brass and bronze wires by using our nickel alloy wires.

**Joseph O'Neill Wire Works**

Port Chester, N. Y.

Established 1906

## Papier-Zeitung

Berlin SW 11 (Germany)

Founded by Carl Hofman, 1876

appears twice a week

Covers the whole paper trade (paper making, transforming, stationery). More than 12,000 bonafide subscribers all over the world.

Subscription: 4 Dollars

Fitchburg, Mass.,  
U. S. A.

## UNION SCREEN PLATE COMPANY

Lennoxville, P. Q.  
Canada

**UNION BRONZE**  
(Best phosphorized Cast Metal)

**SCREEN PLATES**

**ROLLED BRASS**  
(Union Quality)

Old Plates RECLOSED and REBUT to accurate gauge

UNION BRONZE SCREWS for Screen Plates

UNION BRONZE SUCTION BOX PLATES

Immediate Delivery of the Largest Orders. Satisfaction Guaranteed

**THE UNION-WITHAM SCREEN PLATE VAT AND FASTENERS**

THE ORIGINAL  
Over One Thousand in Successful Operation

THE BEST  
Recommended by Screen Makers



# ROGERS WET MACHINE

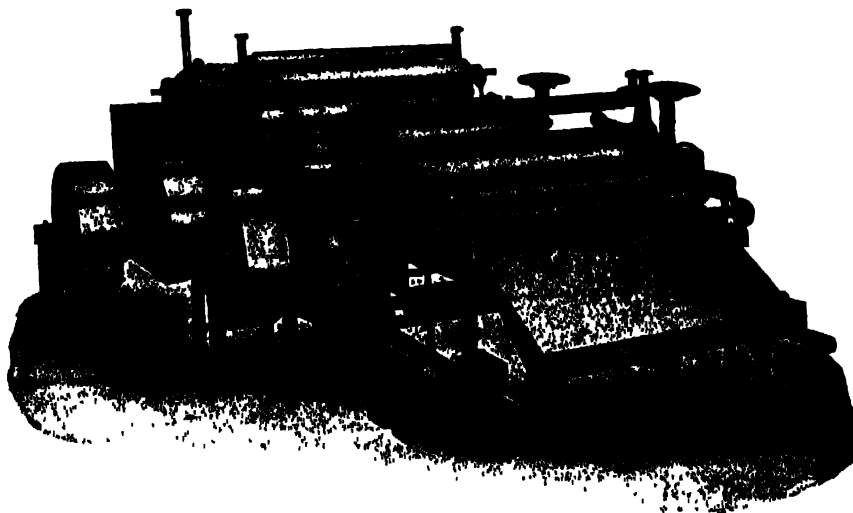


Illustration Shows Rogers Double Press Wet Machine

FOR CHEMICAL PULP—including Sulphite, Sulphate, Soda, also Cotton and Waste Paper fiber.

TYPES—Single and Double Press, 72" wide.

CAPACITY—either type 25-30 tons air dry stock per 24 hours.

SHEETS produced by the Double Press Machine uniformly 48% dry. By the Single Press Machine uniformly 40% dry. There is no fold to contain excessive moisture. Sheets are handy size, 33"x36", and are folded once into most convenient bundles for storage, for the beater or for shipping. By this great capacity, high dry test, small amount of floor space per ton pulp produced, exceedingly low cost for labor and maintenance, users are assured that the machine will completely pay for itself within one year, and are promised a handsome return on their investment.

**WORKMANSHIP AND MATERIAL GUARANTEED.**

**GLENS FALLS MACHINE WORKS**

**Glens Falls, N. Y.**

Try Our Split Cams for Your Flat Screens

See our exhibit at the Seventh National Exposition of Chemical Industries, 8th Coast Artillery Armory, New York, Week of September 12th.

Are you finding difficulty in properly regulating the pressure on your guard-board? A Suction Couch roll will entirely eliminate not only the guard-board but the top couch roll, jacket, arms, levers, weights and all their inherent troubles as well.

## THE SANDUSKY FOUNDRY & MACHINE COMPANY

SANDUSKY, OHIO

11

For reliable running and average long life

### Lindsay Fourdrinier Wires

ARE UNSURPASSED

We make them for the largest and fastest machines.  
Cylinder Wires all sizes.

The Lindsay Wire Weaving Co.  
COLLINWOOD STA. CLEVELAND, OHIO

### The "DAYTON" Bandless Beater Roll

(Lock Block Method)

For  
Beating Engines of All Makes  
WILL SAVE YOU  
MONEY TROUBLE EXPENSE

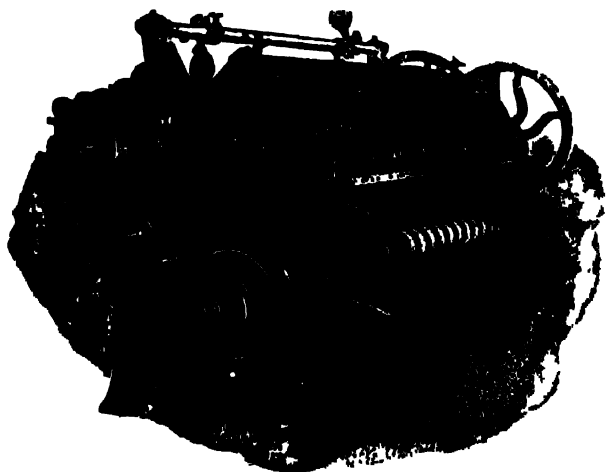
COMPLETE DETAILS ON REQUEST

Dayton Beater & Hoist Co.  
Dayton, Ohio

3

## Paper Cutters

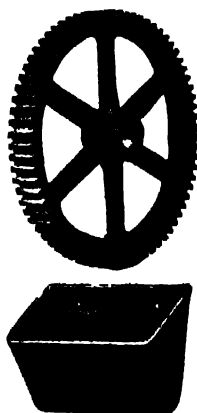
Single, Duplex and Diagonal



Cutter Knives Patent Top Slitters

**HAMBLET MACHINE CO.**  
Lawrence, Mass.

## CALDWELL SERVICE



HALF a million dollars worth of well-selected stock, constantly maintained, and an organization keyed up to the theory that plant efficiency is measured by the number of orders shipped on the day of receipt, accounts for Caldwell service. Let us figure on your requirements.

H. W. CALDWELL & SON CO.  
LINK-BELT COMPANY, OWNER  
CHICAGO, 17th Street and Western Avenue  
NEW YORK, 30 Church St.



**Job Lots, Rejections, Side Rolls Wanted**

**SPOT CASH** paid for jobs in bond paper, white or colors, any grade that will cut down to 11x17, any weight. Send samples, with lowest spot cash prices. No lot too small, and none too large.

**MIDWEST PAPER CO., 712 Federal Street, Chicago, Ill.**



Special Shapou Carbon, Black Diamond **POINTS FOR TURNING** Paper, Cotton, Chilled Iron and Hardened Steel Calendar Rolls, Hard Rubber, Fibre, etc. Manufactured by **THOS. L. DICKINSON, 28 Gold St., NEW YORK**  
Successor to John Dickinson, Established 1704  
Agents for Great Britain, C. W. BURTON, GRIFFITHS & CO., Ludgate Square, London

**Salomon Bros. & Co.**

IMPORTERS OF

**All Grades of Rag and Paper Stock**

200 FIFTH AVENUE, NEW YORK

COTTON WASTE

LINTERS

RAMIE

**CAMACHINE****SLITTERS AND WINDERS**

CAMERON MACHINE CO. BROOKLYN N.Y.



"WATERBURY"

**Felts-Jackets**

ORISKANY, N. Y.

OUR TIGHT FITTING, DIAMOND "W" JACKETS  
WILL NOT LICK UP AT ANY SPEED

1869

MADE ONLY BY

1921

GUARANTEED BY  
**H. WATERBURY AND SONS COMPANY, ORISKANY, N. Y.**

**ATTERBURY BROS.**

(INCORPORATED)

WOOD PULP, RAGS AND PAPER  
STOCK, FRENCH CASEINE

145 NASSAU STREET (POTTER BLDG) NEW YORK

**WINDERS  
AND  
REWINDERS**

**SAMUEL M. LANGSTON COMPANY**  
CAMDEN, N. J.



Don't Guess at Important Matters  
**BOWSHER'S SPEED or MOTION  
INDICATOR**  
IS INDISPENSABLE

In obtaining a UNIFORM speed of machinery, and is one of the most PROFITABLE little devices ever put in a mill. Will pay for itself in 30 days. Dial 12 in. in diam. Weight, 10 lbs.  
**The N. P. Bowsheer Co., South Bend, Ind.**

**ENGINEERS PLANNING POWER TRANSMISSIONS**

Secure Data and Estimates of "MORSE" DRIVES  
SAVE Construction, Space, Light, Fuel Producing More with Less  
**MORSE CHAIN CO. ITHACA, N. Y.**

Engineering Service, Assistance, Bulletins

Baltimore	New York	Cleveland	Pittsburgh	Montreal
Boston	Kansas City	Chicago	San Francisco	Minneapolis
Charlotte, N. C.	Detroit	Philadelphia	Atlanta	St. Louis

**Penn Paper and Stock Company**

PACKERS OF ALL GRADES OF  
**WASTE PAPER**

240 N. FRONT STREET

PHILADELPHIA

**WOOD FLOUR**

Various degrees of fineness and either fibrous or granular.  
Made from first growth Spruce and Pine, by approved processes.

**UNION WOOD FLOUR CO., INC.**

Hudson Falls, N. Y.

**UNION TALC COMPANY**

**Finest Grades of Agalite**

132 Nassau Street

New York

**Your Card in this Space  
WILL BRING RESULTS**

*Rates on Application*

WILLIAM B. DILLON

**DILLON & BARNES**

*Paper Mill Products and Supplies*

52 VANDERBILT AVENUE, NEW YORK

Telephone, 7353 Murray Hill

**AGALITE FILLER**

**UNITED STATES TALC CO.**

**GOVERNEUR : NEW YORK**

**FRANKLIN PAPER CO. HOLYOKE, MASS.**

Manufacturers of

**Index Bristols, White Bristol Blanks, Etc.**

## CLASSIFIED INDEX TO ADVERTISEMENTS

ADDITION MACHINE ROLLS.	Page	CASEIN.	Page	FELTS AND JACKETS (Cont'd.).	Page
Paper Manufacturers Co. . . . .	69	Casem Mfg Co. . . . .	—	Ori Felt & Blanket Co. . . . .	63
<b>AGALITE.</b>		<b>CHEMICALS, COLORS, ETC.</b>		Shuler-Benninghofen Co. . . . .	80
Union T. & Co. . . . .	75	Arnold Hoffman & Co., Inc. . . . .	69	Waterbury Felt Co. . . . .	4
U. S. T. Co. . . . .	75	Heller & Metz Co. . . . .	12	Waterbury & Sons Co. . . . .	75
<b>ALUM.</b>		Du Pont de Nemours & Co. . . . .	—	<b>FILTERING SYSTEMS.</b>	
The Kallitisch Corp. . . . .	—	Kuttruff Pickhardt & Co. . . . .	Front Cover	Norwood Engineering Co. . . . .	66
Pennsylvania Salt Mfg Co. . . . .	80	Sandoz Chemical Works, Inc. . . . .	8	<b>FLOOR COVERINGS.</b>	
Superior Chemical Co. . . . .	72	C. K. Williams & Co. . . . .	80	I. Seimelhorn & Sons . . . . .	—
Winkler Bros., Inc. . . . .	72	<b>CLAY.</b>		<b>FLOOR HARDENER (Concrete).</b>	
<b>ALUM SULPHATE.</b>		Atterbury Bros. . . . .	72	I. Seimelhorn & Sons . . . . .	—
Aluminum Chemical Co. . . . .	—	John W. Higgins Co. . . . .	—	<b>FOURDRINIER WIRES.</b>	
<b>ARCHITECTS AND ENGINEERS.</b>		Star Clay Company . . . . .	80	Appleton Wire Works . . . . .	80
John F. Carrigan . . . . .	68	<b>COAL MINING.</b>		Buchanan Bolt & Wire Co. . . . .	63
George F. Drew . . . . .	68	Empire Coal Mining Co. . . . .	—	Cable Excelmire Wire Mfg Co. . . . .	80
Hardy S. Ferguson . . . . .	68	<b>COGS.</b>		Cheney, Bigelow Wire Works . . . . .	66
William T. Field . . . . .	68	N. P. Howsner Co. . . . .	75	Eastwood Wire Mfg Co. . . . .	80
George F. Hardy . . . . .	68	<b>COMPRESSORS (Air).</b>		Thomas F. Gleason . . . . .	79
Herbert S. Kimball . . . . .	68	The Nash Engineering Co. . . . .	69	Indy Wire Works . . . . .	74
Management Engineering and Development Co. . . . .	69	<b>CORDAGE.</b>		Jos. O'Neill Wire Works . . . . .	72
H. B. Prather . . . . .	68	Columbian Rope Co. . . . .	43	The W. S. Tyler Company . . . . .	79
V. D. Simons . . . . .	68	<b>CUTTING MACHINERY.</b>		<b>FURNACES (Automatic).</b>	
F. L. Smith . . . . .	68	M. D. Knowlton Co. . . . .	72	Murphy Iron Works . . . . .	68
Stebbins Engineering Co. . . . .	69	<b>DIE CUTTERS.</b>		<b>GAUGES (Pressure, Indicating and Recording.)</b>	
Thomas L. Tomlins & Son . . . . .	68	Hogson & Pettis Mfg Co. . . . .	—	Bristol Co., The . . . . .	49
Vitale & Rothery . . . . .	68	Independent Die Co., Inc. . . . .	6	Manning Gauge Co. . . . .	55
Joseph H. Wallace & Co. . . . .	68	<b>DIGESTERS.</b>		The Foxboro Co., Inc. . . . .	69
<b>ASBESTINE PULP.</b>		American Welding Co. . . . .	—	<b>GUMMING AND GLUING MACHINERY.</b>	
International Pulp Co. . . . .	Front Cover	<b>DRIVES, SILENT CHAIN.</b>		Potdevin Machine Co. . . . .	57
<b>BALL BEARINGS.</b>		Morse Chain Co. . . . .	75	<b>HEATERS.</b>	
S. K. F. Industries, Inc. . . . .	—	<b>DRYER EXHAUSTS.</b>		Gasdon Co., Inc., Robert . . . . .	—
<b>BEATING ENGINES.</b>		The Nash Engineering Co. . . . .	69	<b>IRON AND STEEL PRODUCTS.</b>	
Beloit Iron Works . . . . .	55	<b>DRYING SYSTEMS.</b>		Brown-Walsh Co. . . . .	5
Claffin Engineering Co. . . . .	78	Farnsworth Co. . . . .	—	<b>KNIVES, ETC.</b>	
Dayton Beater & Hout Co. . . . .	74	Open Coil Heater & Purifier Co. . . . .	12	Bolton & Sons, J. W. . . . .	9
Dillon Machine Co. . . . .	74	W. F. Jakes . . . . .	12	Dowd Knife Works . . . . .	—
Ditts Machine Works, Inc. . . . .	74	<b>DYES, ANILINE.</b>		Machinery Co. of America . . . . .	—
Downingtown Mfg. Co. . . . .	77	Calco Chemical Co. . . . .	—	<b>LUBRICANTS.</b>	
Emerson Mfg. Co. . . . .	77	Holler & Mory . . . . .	12	Vacuum Oil Co. . . . .	38 and 39
Mills Machine Co. . . . .	71	National Aniline & Chemical Co. . . . .	—	<b>MICROMETERS.</b>	
Noble & Wood Machine Co. . . . .	71	The White Lar Aniline Corporation . . . . .	—	E. I. Cady & Co. . . . .	—
Valley Iron Works Co. . . . .	—	<b>DYE STUFFS.</b>		Foreign Paper Mills, Inc. . . . .	3
<b>BELT LACING, STEEL.</b>		E. I. du Pont de Nemours & Co. . . . .	—	<b>MILL COGS.</b>	
Flexible Steel Lacing Co. . . . .	—	<b>ELECTRIC EQUIPMENT.</b>		N. P. Howsner & Co. . . . .	75
<b>BELTING.</b>		General Electric Co. . . . .	—	<b>MOTORS.</b>	
Cincinnati Rubber Mfg Co. . . . .	—	<b>ELECTRIC HOISTS.</b>		B. F. Perkins & Son, Inc. . . . .	11
Goodyear Tire & Rubber Co. . . . .	27	Shaphard Electric Crane & Hout Co. . . . .	53	<b>NAVAL STORES.</b>	
The Rossdale-Kedaway Co. . . . .	—	<b>ENGINEERS.</b>		Sticulus Powder Co. . . . .	—
R. D. Skinner & Co., Inc. . . . .	—	Samuel M. Green Co. . . . .	49	<b>OILS AND GREASE.</b>	
<b>BOILERS.</b>		J. O. Ross Engineering Corp. . . . .	—	Vacuum Oil Co. . . . .	38 and 39
Henne Boiler Co. . . . .	3	<b>ENVELOPE MACHINES.</b>		<b>PACKING.</b>	
<b>BOOKS.</b>		Potdevin Machine Co. . . . .	57	Jenkins Bros. . . . .	55
Technical Association of the Pulp & Paper Industry . . . . .	45	F. I. Smith Machine Co. . . . .	61	<b>PAINTS &amp; VARNISHES.</b>	
<b>BRONZE ROLL JACKETS.</b>		<b>FELTS AND JACKETS.</b>		Du Pont de Nemours Co., E. I. . . . .	—
Sandusky Foundry & Machine Co. . . . .	74	Albany Felt Co. . . . .	10	<b>PAPER BAG MACHINERY.</b>	
<b>BUCKETS (Elevator).</b>		Appleton Woolen Mills . . . . .	5	Fischer Machinery Co. . . . .	6
Hendrick Mfg Co. . . . .	9	F. Bredt & Co. . . . .	Front Cover	Potdevin Machine Co. . . . .	57
<b>CALENDER ROLLS.</b>		Draper Bros Co. . . . .	72	<b>PAPER BAG MANUFACTURERS.</b>	
Farrar Foundry & Machine Co. . . . .	70	Fitchburg Duck Mills . . . . .	13	Consolidated Paper Bag Co. . . . .	61
Lobdell Car Wheel Co. . . . .	70	F. C. Huyck & Son . . . . .	3	Lawrence Bag Co. . . . .	69
Norwood Engineering Co. . . . .	66	Knox Woolen Co. . . . .	—	Schurich & Co. . . . .	63
Perkins & Son, Inc., B. F. . . . .	11	Lockport Felt Co. . . . .	—	<b>PAPER BOX BOARDS.</b>	
<b>CARBON TOOLS.</b>				C. L. Buteaux Co. . . . .	10
Textile Finishing Machinery Co. . . . .	61			<b>PAPER CUTTERS.</b>	
Thomas I. Dickinson . . . . .	75			Gamblett Machine Co. . . . .	74
				McLathlin & Co., G. T. . . . .	—

**Paper Stock**

**NOW IS THE TIME TO BUY OUR RAW MATERIALS**  
 Out of our forty different grades of paper stock you are assured a steady, reliable source for procuring raw materials in practically every branch of paper making.  
 Having specialized for 35 years in this one field you can depend upon a clean, well-packed, uniform product throughout; fulfillment of delivery promises; and because of our output of 300 tons daily, big tonnage at all times. Write us your wants.  
**Mendelson Bros. Paper Stock Co.,**  
 General Offices: 918 So. Michigan Ave., Chicago, Ill.  
 Long Distance Phone, Harrison 284 and 287

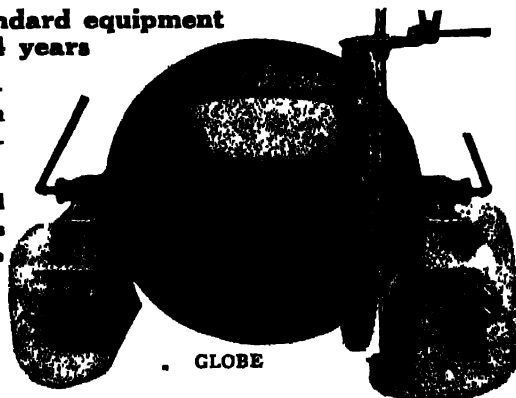
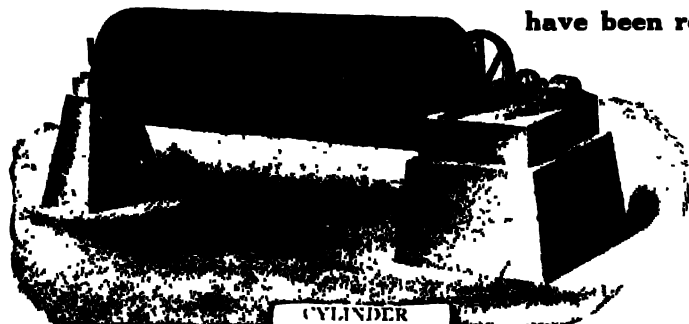
## "BIGGS" ROTARY BLEACHING BOILERS

have been regarded as standard equipment  
for the last 34 years

May we not figure with you on your next installation?

Steel Storage and Pressure Tanks for every purpose

Write for prices



**The Biggs Boiler Works Company Akron, Ohio, U.S.A.**

## CLASSIFIED INDEX TO ADVERTISEMENTS

PAPER DEALERS.	Page	PAPER STOCK (Cont'd.).	Page	SPLICING TISSUE.	Page
M. M. Elsh & Co. ....	—	Salomon Bros. & Co. ....	73	Sergeant Co., E. M.	—
R. F. Hammond. ....	Front Cover	Train-Smith Co. ....	Front Cover	<b>STEAM SPECIALTIES</b>	—
Midwest Paper Co. ....	75	<b>PAPER TESTERS.</b>	—	Crane Co. ....	47
<b>PAPER EXPORTERS.</b>	—	Ashcroft Mfg. Co. ....	61	Open Coil Heater & Purifier Co. ....	—
A. M. Capen's Sons, Inc. ....	80	Foreign Paper Mills, Inc. ....	3	<b>STITCHING MACHINERY.</b>	—
Hudson Trading Co. ....	2	B. F. Perkins & Son, Inc. ....	11	Sai Mac Machine Co. ....	71
Parsons Trading Co. ....	Front Cover	<b>PAPER TUBE MACHINERY.</b>	—	<b>SULPHITE PULP ("Kraft" Soda).</b>	—
Parsons & Whittemore. ....	3	Dietz Machine Works. ....	70	Driscoll Pulp & Paper Co., Ltd. ....	—
W. M. Pringle Co., Inc. ....	10	Ginsinger Machine Works. ....	72	<b>SULPHITE BLEACHED AND UNBLEACHED</b>	—
<b>PAPER MANUFACTURERS.</b>	—	<b>PAPER WAXING MACHINERY.</b>	—	J. Andersen & Co. ....	4 and 31
American Coating Mills. ....	11	Patdevin Machine Co. ....	57	The Borggaard Co., Inc. ....	57
Bayless Mfg. Co. ....	5	<b>PERFORATING MACHINES.</b>	—	Brown Company. ....	5
Brown Company. ....	5	Dietz Machine Works. ....	70	Canadian Robert Dollar Co. ....	37
Collins Mfg. Co. ....	13	<b>PERFORATING METAL.</b>	—	Craig-Becker Co., Inc. ....	3
Diamond State Fibre Co. ....	Front Cover	Hastington & King Perforating Co. ....	63	Hydrex Pulp & Paper Co. ....	—
Eaton Hickman Co. ....	11	Hendrick Mfg. Co. ....	9	Parsons Pulp & Lumber Co. ....	61
Fort Howard Paper Co. ....	—	Charles Mundt & Sons. ....	—	Price & Pierce, Ltd. ....	Front Cover
Franklin Paper Co. ....	75	Manhattan Perforated Metal Co. ....	69	Pulp & Paper Trading Co. ....	72
Hammermill Paper Co. ....	51	<b>PLUGS (Wood).</b>	—	<b>SULPHUR.</b>	—
Howard Paper Co. ....	55	O. L. Bartlett. ....	11	Texas Gulf Sulphur Co. ....	13
Missouri Pulp & Paper Co. ....	4	<b>PULP PROCESS.</b>	—	Union Sulphur Co. ....	2
Mountain Mill Paper Co. ....	8	Castle, Gotthelf & Overton. ....	6	<b>TANKS.</b>	—
Nuera Paper Company. ....	9	<b>PULP STONES.</b>	—	W. F. Caldwell Co. ....	—
New York & Maryland Pulp & Paper Co. ....	7	International Pulp Stone Co. ....	Front Cover	New England Tank & Tower Co. ....	79
Poland Paper Co. ....	57	Lombard & Co. ....	79	Stearns Lumber Co. ....	79
Sherman Paper Co. ....	69	<b>PULWOOD.</b>	—	<b>TAPE MOISTENERS.</b>	—
Stratford Paper Co. ....	77	The Northern Wood Supply Co. ....	57	Liberty Paper Co. ....	—
Wausau Sulphate Fibre Co. ....	—	<b>PUMPS.</b>	—	<b>TIMBER ESTIMATES.</b>	—
<b>PAPER AND PULP MACHINERY.</b>	—	Frederick Iron & Steel Co. ....	—	R. R. Bradley. ....	68
Bagley & Sewall Co. ....	—	Havon Pump & Blower Co. ....	—	James W. Sewall. ....	68
Baker Mfg. Corp. ....	71	<b>PUMPS (Vacuum.)</b>	—	<b>TRANSMISSION MACHINERY</b>	—
Belmont Iron Works. ....	35	The Nash Engineering Company. ....	69	H. W. Caldwell & Sons Co. ....	74
Bird Machine Co. ....	33	<b>RAG CUTTERS.</b>	—	Reeves Print Co. ....	53
Black-Clawson Co. ....	70	H. F. Perkins & Son, Inc. ....	11	<b>TURBINES.</b>	—
Clark-Aiken Co. ....	8	Taylor-Stiles & Co. ....	—	S. Morgan Smith Co. ....	—
Frank H. Davis. ....	65	<b>REAM CUTTERS.</b>	—	<b>TURPENTINE.</b>	—
Downingtown Mfg. Co. ....	74	Geo. T. McLaughlin Co. ....	—	Hercules Powder Co. ....	—
Glens Falls Machine Works. ....	37	<b>RECORDING INSTRUMENTS.</b>	—	<b>TWINES.</b>	—
Improved Machinery Co. ....	37	Bristol Company. ....	69	American Manufacturing Co. ....	51
Mills Machine Co. ....	65	Kocher Co., Inc. ....	69	<b>VALVES.</b>	—
Sandusky Foundry & Machine Co. ....	74	<b>ROBIN.</b>	—	Crane Co. ....	47
Sandy Hill Iron & Brass Co. ....	67	Hercules Powder Co. ....	—	Lenins Bros. ....	55
Shurtle Bros. Machine Co. ....	78	<b>ROBIN SIZE.</b>	—	<b>VENTILATING FANS.</b>	—
Smith & Winchester Mfg. Co. ....	—	Arabol Mfg. Co. ....	79	H. F. Perkins & Sons, Inc. ....	11
Valley Iron Works Co. ....	2	<b>ROTARY BLEACHING BOILERS.</b>	—	<b>VEGETABLE PARCHMENT PAPERS.</b>	—
Waterville Iron Works. ....	—	Biggs Boiler Works Co. ....	76	Kalamazoo Vegetable Parchment Co. ....	8
<b>PAPER MILL AGENTS.</b>	—	<b>RUBBER ROLLS.</b>	—	<b>WAREHOUSE SERVICE.</b>	—
Dillon & Barnes. ....	75	American Wrings Co. ....	—	Brown-Wales Co. ....	5
Hill Company, Berton Co. ....	66	<b>SAVE ALL.</b>	—	<b>WAXED PAPERS.</b>	—
McIver, Dana T. ....	2	Bird Machine Co. ....	33	Dragon Paper Mfg Co. ....	—
McIver, E. C. ....	69	<b>SCALES (Paper).</b>	—	<b>WOOD FLOOR.</b>	—
R. L. Stevens, Jr. ....	—	Ed. Baker. ....	57	Union Wood Floor Co. ....	75
<b>PAPER MILL SUPPLIES</b>	—	E. J. Cady & Co. ....	—	<b>WOOD PULP IMPORTERS.</b>	—
Paper Makers Chemical Co. ....	4	Foreign Paper Mills, Inc. ....	3	American Wood Pulp Corp. ....	61
<b>PAPER AND PULP MILL BROKERS.</b>	—	<b>SCREENS.</b>	—	J. Andersen & Co. ....	4 and 31
Gilbs Brower Co. ....	—	Bird Machine Co. ....	33	Ira L. Beebe & Co. ....	79
<b>PAPER STOCK.</b>	—	Central Mfg. Co. ....	67	The Borggaard Co., Inc. ....	57
Atterbury Bros. ....	75	Wm. A. Hardy & Sons Co. ....	55	M. Gottesman & Co. ....	29
Castle, Gotthelf & Overton. ....	72	Union Screen Plate Co. ....	73	Hammond, R. F. ....	Front Cover
Gumbinsky Bros. ....	80	<b>SKYLIGHTS.</b>	—	E. J. Keller Co. ....	66
Hicks, Daniel M. ....	72	F. Van Noorden & Co. ....	70	Lagerlert Trading Co. ....	14 and Front Cover
Francis Hughes Co. ....	66	<b>SLASHERS.</b>	—	A. J. Pagel & Co., Inc. ....	25
Mendelson Bros. Paper Stock Co. ....	70	Kyther & Pringle Co. ....	—	T. F. Patton & Co., Inc. ....	53
Penn Paper & Stock Co. ....	75	<b>SLITTERS AND REWINDERS.</b>	—	Scandinavian-American Trading Co. ....	12
		C. Henninghofen & Sons. ....	69		
		Cameron Machine Works. ....	75		
		Dietz Machine Works. ....	70		
		Samuel M. Langston Co. ....	75		

## STRATFORD PAPER CO.

160 Cornelison Ave.  
Jersey City, N. J.

High Grade Fourdrinier Tissues in Stock for Immediate Delivery

## EMERSON MANUFACTURING CO. LAWRENCE MASS.

See the Second-Hand Machinery ads and note the  
ABSENCE ofEMERSON  
BEATING ENGINESThey seldom wear out and are never thrown out.  
PERFECT CIRCULATION. NO "PADDLING."

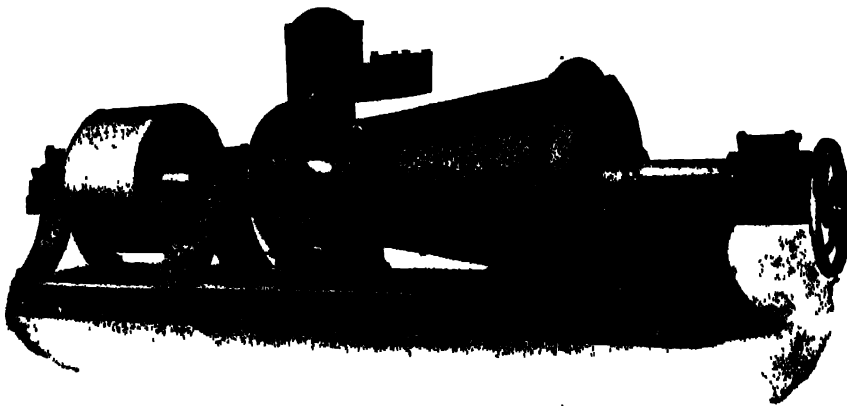
## The "EMERSON" JORDAN

does its work with half the power required by others of no  
greater capacity.

WRITE FOR DETAILS



# THE DILLON JORDAN



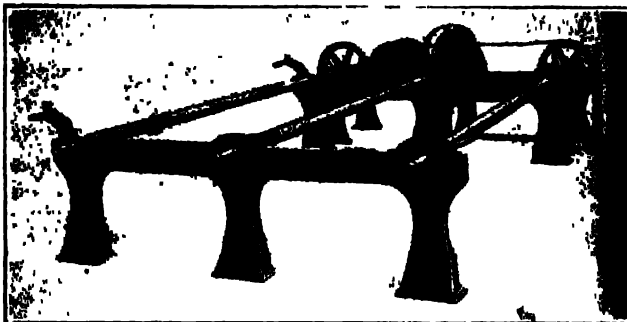
Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Outside stand fitted with gauge to keep the plug central with the shell.

*For full particulars apply to*

**DILLON MACHINE CO., Inc.**  
Builders of Paper Mill Machinery  
Lawrence, Mass.

## DOWNINGTOWN MANUFACTURING CO.

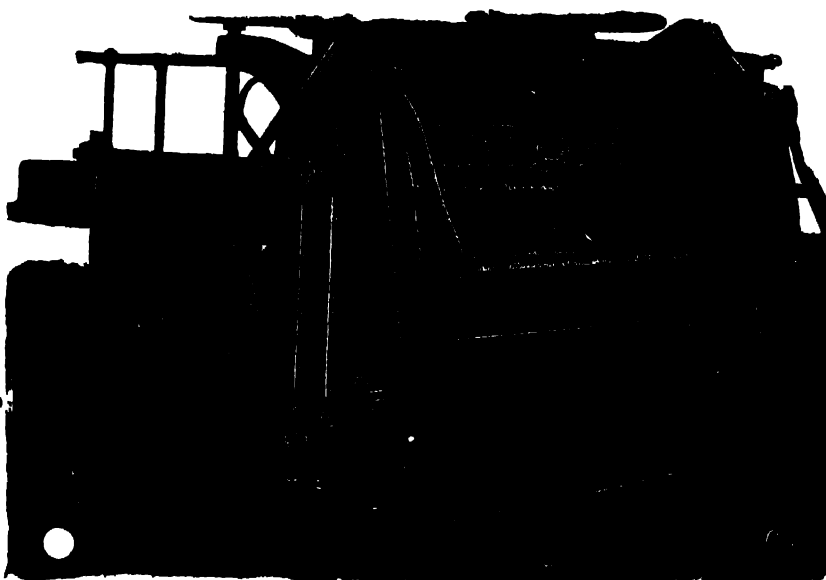
EAST DOWNINGTOWN, PA., U. S. A.



**3 Shaft Compensating Winder**

*We build all kinds of  
Paper Mill Equipment*

**WRITE US FOR PRICES**



## The Undercut Trimmer

The Paper Mill Cutter, combining the highest degree of accuracy, speed and simplicity for the most exact trimming.

The clamping power of the Undercut is not equalled by any other cutter, and assures absolute accuracy in trimming. The safety in operating an Undercut is a very important fact to be considered, as well as simplicity of design and construction carried out in the best manner and workmanship possible.

The speed of the Undercut is such that more cuts can be utilized in the working of our machine than in the high-speed cutters, which not only consume power, but wear out rapidly.

Our Power Back Gauge Drive enables the operator to handle material quickly, easily, and more in quantity than can be secured in the use of other machines.

For further and full information, call upon

**The Smith & Winchester Mfg. Co.**

Builders of High Grade Paper Mill Machinery and Paper Bag Machinery  
South Windham, Conn.

## Missisquoi Pulp and Paper Company

SHELDON SPRINGS VERMONT

White and Tinted Bristols—White Blanks—Index Bristol and Specialties in Card Boards.

## Francis Hughes Company

Packers and Graders of

## Paper Mill Supplies

Correspondence Solicited

21st Street at Loomis, Chicago, Ill.

Private Switch on C. B. & Q. Tracks

# KNOX WOOLEN CO.

MANUFACTURERS OF

## "EXCELSIOR"

Seamless Felts for fast running

Satin style Felts for fine finish

FELTS AND JACKETS  
FOR EVERY GRADE OF PAPER  
CAMDEN, MAINE

1863

1921

# CASEIN

Standard Quality  
Lowest Prices

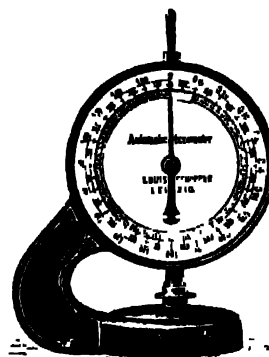
The Casein Manufacturing Company

15 Park Row New York

## SCHOPPER STANDARD PAPER TESTERS ARE THE BEST

11" high

8" wide



### THE ORIGINAL MICROMETER

They last a life time.

Why buy imitations?

Strength and Stretch Testers  
Folding Testers  
Hygrometers  
Testing Acids

Pocket Micrometers  
Desk Micrometers  
Pocket Scales  
Desk Scales

U. S. A.

SOLE AGENTS

CANADA

FOREIGN PAPER MILLS, INC.

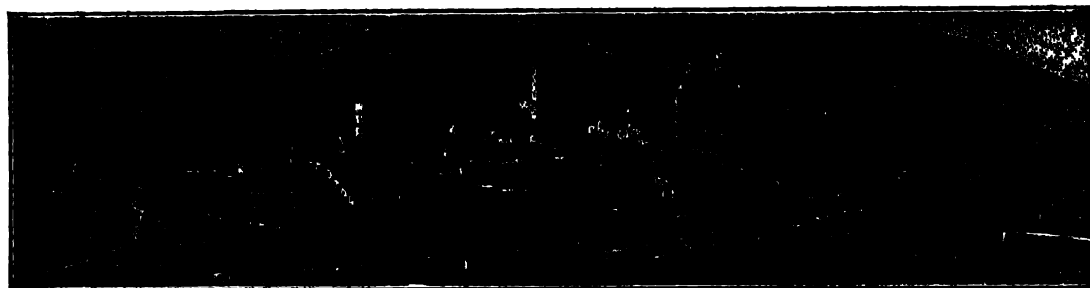
241 BROADWAY

NEW YORK



## Bayless Manufacturing Corporation

SALES OFFICE: 527 FIFTH AVENUE, NEW YORK.  
PULP AND PAPER MILLS AT AUSTIN, PA.



HIGHEST  
QUALITY  
SULPHITE  
WRAPPING  
PAPERS

### The Pulp and Paper Trading Co.

21 East 40th Street New York City

**DEALERS IN DOMESTIC CHEMICAL AND  
MECHANICAL PULPS AND PAPER**

AGENTS FOR

J. & J. Rogers Company, Ausable Forks, N. Y.

Ware Coated Paper Company, Ware, Mass.

Procter & Gamble Distributing Co.

Mills at Augusta, Georgia, and Memphis, Tenn.

Canadian Kraft Limited, Three Rivers, Canada

Dealers in Wayagamack Kraft Pulp

**EASTERN AGENTS of Sulphite Pulp. Made by  
Port Huron Sulphite & Paper Co., Port Huron, Mich.**

### J. ANDERSEN & CO.

FREDERICK BERTUCH, SPECIAL PARTNER

21 East 40th Street, New York City

**Importers of Chemical Pulps  
BLEACHED AND UNBLEACHED**

Agents for Kellner Partington Paper Pulp Co., Ltd.  
Sarpsborg, Norway; Forsbaga, and Edsvala, Sweden;  
Bergvik and Ala Nya Aktiebolag, Soderhamn, Sweden

Scandinavian Export Agents

**TEXAS GULF SULPHUR CO., TEXAS CITY, TEXAS**

### THE WATERBURY FELT CO.



**FELTS and  
JACKETS**

For Every Grade of Paper and Pulp

Correspondence and Orders  
Solicited

Manufactured at

**SKANEATELES FALLS  
New York**

JAMES ROSENBERG, Pres. L. W. BOWMALL, Vice Pres.

### AMERICAN WOODPULP CORPORATION

FOREIGN AND DOMESTIC

**CHEMICAL and MECHANICAL  
WOODPULPS**

*Rags, New Cuttings, Bagging, Etc.*

*Chemicals of All Descriptions*

New York—347 Madison Ave.

BRANCHES:  
Stockholm—Sweden  
Helsingfors—Finland

Holyoke—J. B. Woodruff, Inc.  
Kalamazoo—F. D. Haskell  
Dayton—R. R. Reed

# WHITAR

TRADE MARK REG. U.S. PAT. OFF.

# NEWS BLUE METHYL VIOLET

We supply a complete line of colors suitable for paper

**THE WHITE TAR ANILINE CORP.**

56 Vesey Street, New York

Works: Kearny, N. J.



**Quality Paper Products**  
**Toilets—Napkins—Towels**

All of spruce fibre—white as napery just from the loom or in the rich natural color of the wood—soft and pliant, yet possessing unusual absorbent features. Fort Howard Products converted from this superior paper, made in our plant has found favor with jobber, retailer and consumer, because of its quality. Toilets in all grades. Napkins Flat and folded. Towels in Rolls or Inter-folded. Three distinct lines but all of the same high standard.

**Fort Howard Paper Co.**  
 Green Bay :: :: Wisconsin

# NORWOOD

## PAPER FINISHING MACHINERY

**SUPER CALENDERS  
PLATERS**

**The Standard for Over 30 Years**

*Write for Information.*

**NORWOOD ENGINEERING CO.**  
 Florence, Mass., U. S. A.

## BLEACHED. Sulphite Fibre

*of the highest grade*

*Uniform quality, prompt shipments and market prices. Daily capacity of 600 air-dry tons.*

**BROWN COMPANY**

*Founded 1852*

**PORTLAND MAINE**

*Mills at Berlin, New Hampshire*

NEW YORK CITY  
 Woolworth Bldg

CHICAGO  
 110 So. Dearborn St.



Manufacturers of

**Coated Cardboard, Boxboard and Lithograph Paper, including Lithograph Blanks, Postal Card Stock, Tough Check, Railroad, Thick China, Translucents and Menu Board.**

Our Boards and Papers lie flat, hang straight, and register because they are made right.

Orders for regular or special sizes are given prompt attention. Quality guaranteed.

**TRY US AND SEE**  
**EASTERN SALES OFFICE, 501 Fifth Avenue, NEW YORK CITY**



## Standardize

your requirements for Grease-proof paper on tested quality.

The well-known brands Purity and Berkshire will meet all requirements a high grade Grease-proof paper is subject to.

Many of the largest paper distributors of the country have standardized on Mountain Mill products.



Why don't you?

*We will be glad to mail you a full line of samples.*



**LEE, MASSACHUSETTS**

Chicago Sales Office: 1148 First National Bank Building  
New York Office: 225 Fifth Avenue

# TEXAS GULF SULPHUR

**99½ Per Cent. Pure**

Produced from one of the largest known deposits in the world.

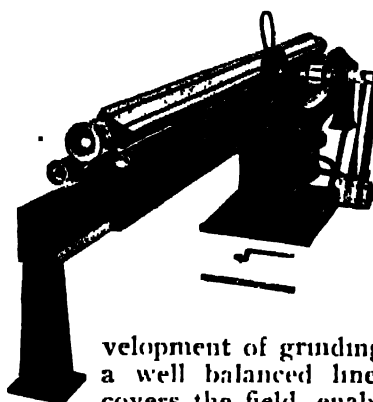
## Texas Gulf Sulphur Company

*General Offices*

41 East 42nd Street, New York, N. Y.

*Sulphur Deposit and Plant, Matagorda County, Texas*

## For Grinding Paper Knives IMPROVED CONSTRUCTIONS



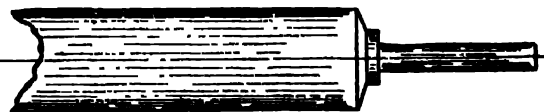
A carefully developed line of automatic and hand knife grinders of all sizes and types

Representing three large plants which have specialized over a long period of years, in the development of grinding machines, we have a well balanced line which completely covers the field, enabling exact choice in either light or heavy grinders for straight wheel, cup wheel, ring wheel and adjustable chuck with block wheel grinding.

Get our recommendations on your requirements. Send for catalog illustrating the variety of our work

**Machinery Company of America**  
Big Rapids, Mich., U. S. A.

Branch: 534 First Ave., South Seattle, Washington



## Rubber Covered Felt Rolls

The next time you need your brass covered felt rolls recovered, we suggest you connect with us before having this work done.

We cover felt rolls with rubber that give far better service than those covered with brass jackets. Our rubber rolls wear perfectly smooth and do not pit, crack or cut the felts same as brass rolls do. Reports from one of the largest paper mills in the United States which has a large number of these rolls in operation indicate that the rolls are very satisfactory, and after being in use over a year and a half show practically no signs of wear.

This is worth your consideration. Send us your inquiries. Quick return shipment is our specialty.

We also furnish the best rubber covers for all kinds and sizes of paper mill rolls

**THE AMERICAN WRINGER CO.**

Dept. P  
Mechanical Roll Dept.,

WOONSOCKET, R. I.

# COLORS

*Calender  
Beater  
Coating*



*For all grades of stock*

PROMPT LABORATORY SERVICE

**SANDOZ CHEMICAL WORKS**

INCORPORATED

238-240 Water St., New York

OUR SOURCE OF SUPPLY IS  
**SANDOZ CHEMICAL WORKS**  
Basle, Switzerland

# PAPER MAKERS' ALUM

(Both Commercial and Free from Iron)

Casein, Satin White, English China Clay,  
Crystal Boro Phosphate

(A solvent for Casein)

**THE KALBFLEISCH  
CORPORATION**

31 UNION SQ. WEST. NEW YORK, N. Y.

“Papers made in the Adirondacks”

## 1919 PAPERS

### EQUIPMENT—

92" trim Cylinder machine for Heavy Papers .010 to .025    56" trim Fourdrinier machine for Medium Weight Papers  
65" trim Harper machine for Light Weight Papers    40" Plater for "special surfacing"  
40" Roll Embossing machine

We are equipped to make the following specialties:

Drawing  
Railroad Writing  
Bogus Bristol  
Photo Mounts (Solid and Filled)  
Cover Paper  
Kraft  
Anti Tarnish  
Macaroni  
News

Chocolate Layer Board  
Cheviot Paper  
Coating  
Ticket Bristol  
Album Paper  
Black Papers  
Filled Calendar Back  
Solid Calendar Back

Colored Poster  
Colored Sulphite  
Box Cover  
Plated and Embossed Papers  
Match Box Paper  
Special Standard Cover (antique  
finish only)  
Pattern Paper  
Manila

White and Colored Papers for Special Requirements

We also will stock two cover lines—one pattern paper line—one box cover line.

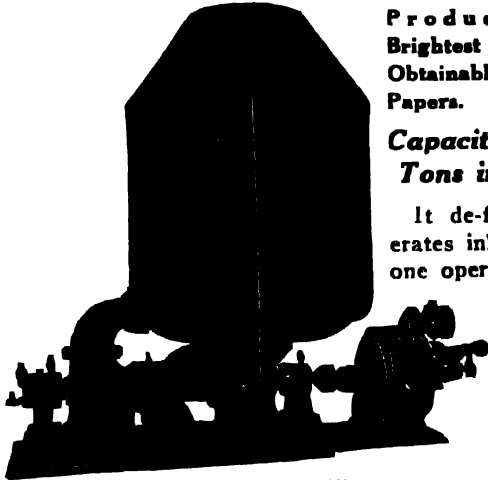
# NUERA PAPER CO., Inc.

General Offices and Mill: Hadley, New York

W. J. Blackley  
General Sales Manager

# WINESTOCK

DE-FIBERING AND DE-INKING PROCESS  
PATENTED



Produces Strongest,  
Brightest and Best Pulp  
Obtainable from Waste  
Papers.

Capacity—12 to 15  
Tons in 24 Hours

It de-fibers and lib-  
erates ink and color in  
one operation. It sep-  
arates ink and color  
from fibers,  
instead of  
rubbing,  
grinding or  
kneading  
them in.

Height of Machine Over All, 12 Feet

**CASTLE, GOTTHEIL & OVERTON**

SOLE SELLING AGENTS IN THE UNITED STATES

200 Fifth Ave. Building

New York, N. Y.

E. D. Jones & Sons Co., Pittsfield, Mass.,

Builders in the United States

Waterous Engine Works Co., Ltd., Builders and Selling

Agents for Canada, Brantford, Canada.

# Felts

*Made to Suit Your  
Individual Needs*

Quality Paper  
Quantity Production

is another way of saying

**APPLETON**  
Felts and Jackets

Appleton Woolen Mills  
Appleton, Wis.

ESTABLISHED 1828

SOUTH WINDHAM, CONN.

## THE SMITH & WINCHESTER MFG. CO.

MANUFACTURERS OF

### PAPER BAG MAKING MACHINERY

AS ILLUSTRATED AND DESCRIBED IN BULLETIN NO. 10

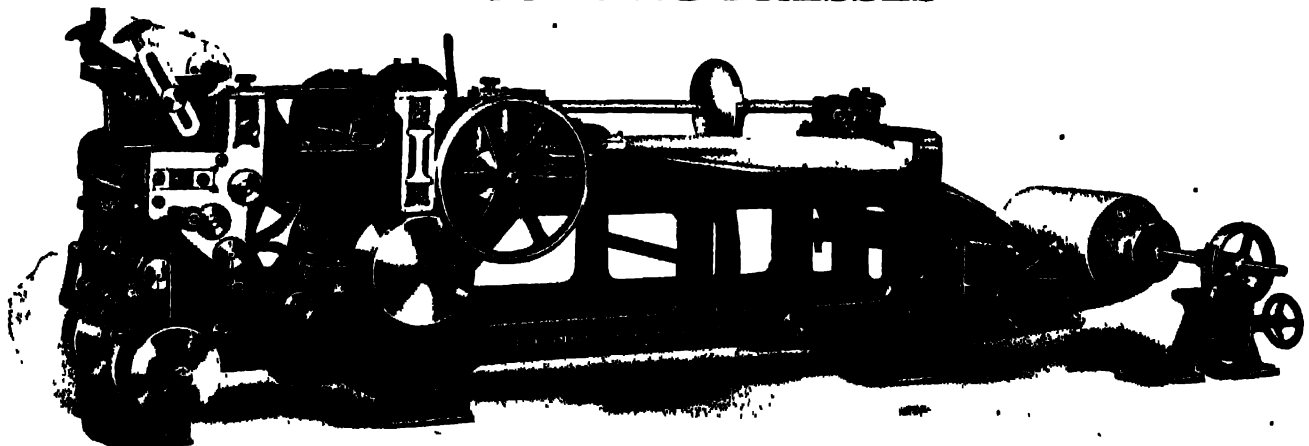
### PAPER MAKING—PAPER CUTTING MACHINERY

FOURDRINER—CYLINDER—WET MACHINES

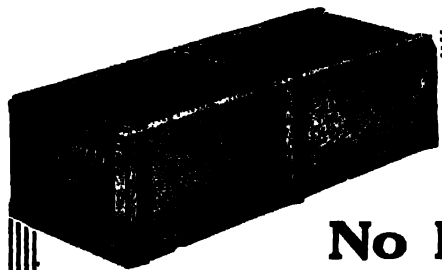
JORDAN ENGINES—PUMPS—CALENDERS—REELS—CUTTERS—WINDERS—ROLLS

THE RAINSTORM SHOWER PIPE—COLLAPSIBLE CORES

### DIE CUTTING PRESSES



OUR NO. 4 NATIONAL BAG MACHINE FOR THE PRODUCTION OF FLOUR, CEMENT AND LIME SACKS, ALSO CHARCOAL BAGS



# No Break No Leak

Every Caldwell Tank is machine-planed and jointed-- properly. The Caldwell Cypress Tank swells just enough to make it virtually a solid piece of wood, thoroughly leak-proof. True, tight and properly braced-- there is no possibility for bulges or breaks.

Caldwell Tanks are built by men who have been making superior tanks for over 30 years.

**Send for Catalogue**

W E CAIDWELL Co,  
INCORPORATED  
2040 BROOK ST. LOUISVILLE, KY

**Caldwell**  
**TANKS**  
**AND**  
**TOWERS**

## Fly Bars

## Bed Plates

## Jordan Fillings

## Knives

**For all makes  
of Machines.**

**For all classes  
of work.**

**We can offer a desirable and dependable source of supply.**

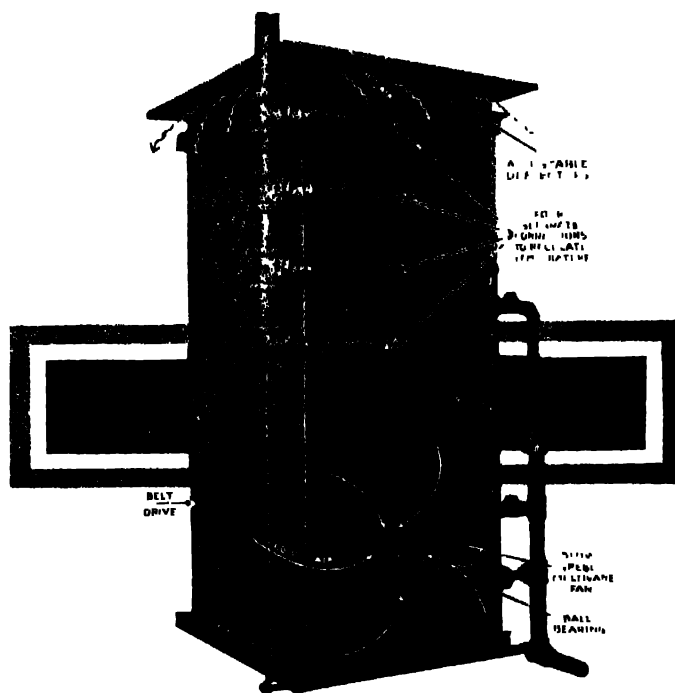
**Let us quote on your requirements.**

**JOHN W. BOLTON & SONS, Inc.**

**Lawrence, Mass.**

**High Grade Fly Bars, Bed Plates, Jordan  
Fillings and Knives.**

# GORDON STEAM UNIT HEATER



## LOWEST COST DRYING HEATING AND VENTILATING

**T**HE marked flexibility of the Gordon Steam Unit Heater accounts for its extremely low operating cost—this unit is quickly adapted to fit requirements.

Each of the 4 cast iron coil banks has its own supply valve so that as many coils as are needed may be used. The Multivane Fan handles more air at lower speeds so that less power is required to move a given volume. The heat may be directed or concentrated where needed, as there are 4 separate outlets—all controllable

**Get the facts and figures on your requirements. Plant officials and their architects and engineers may without obligation "Consult Gordon." Use the convenient coupon. We are headquarters for information on the items listed below.**

**ROBERT GORDON, Inc.**

**"Climate Makers"**  
**Specialists in Heating and Ventilating**  
*Established 1890*

638 W. MONROE STREET

**CHICAGO, ILL.**

**Robert Gordon, Inc.,**  
636 W. Monroe St., Chicago

**Gentlemen:** We are interested in the item or items checked below:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Mechanical Hot Blast Stacker | <input type="checkbox"/> Mechanically Circulated Water Heating. | <input type="checkbox"/> Ventilation-Fan System of Heating. |
| <input type="checkbox"/> Steam Unit Heaters           | <input type="checkbox"/> Direct Steam Heating.                  | <input type="checkbox"/> Process Piping.                    |
|   | <input type="checkbox"/> Drying.                                | <input type="checkbox"/> Air Conditioning.                  |

☐ Preliminary survey, and recommendation of best type of heating for our plant, based on installation and operating costs.

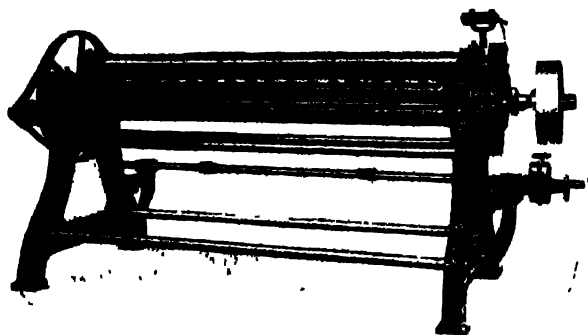
Name \_\_\_\_\_

**Address** \_\_\_\_\_

For \_\_\_\_\_

## The "Dietz" Toilet Paper Machines

For making Toilet Paper Rolls with or without perforations



Self-Adjusting — Easy to Operate  
WE ALSO MANUFACTURE

### AUTOMATIC TUBE MACHINES

FOR MAKING TUBES FOR TOILET PAPER ROLLS  
(CAPABLE OF PRODUCING 3,600 WIRE STITCHED  
TUBES PER HOUR)

Also machines for making Sanitary Crepe Paper Towels, Slitting and Rewinding Machines, Drop Roll Slitters, Side and Center Seam Merchandise Envelope Machines, Photo Mount Beveling Machines, Candy Bag Machines, Punch Presses for Playing Cards, Rotary Card Cutting and Collating Machines, Etc. (CORRESPONDENCE SOLICITED)

### DIETZ MACHINE WORKS

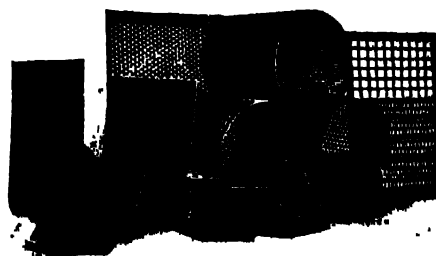
126-128 Fountain St., Philadelphia, Pa.

Corner Waterloo St., Below Diamond St., Bet. Front and 2nd Sts.

## PERFORATED METAL SCREENS

IN STEEL AND ALLOYED METALS

For Pulp and Paper Mills



Elevator Buckets, Conveyor Flights  
and Troughs, General Sheet and  
Light Structural Work

Light and Heavy Steel Plate Construction

### HENDRICK MANUFACTURING CO.

75 Dundaff Street, Carbondale, Pa.

New York Office, 30 Church St.

Pittsburgh Office, 915-916 Union Bank Building

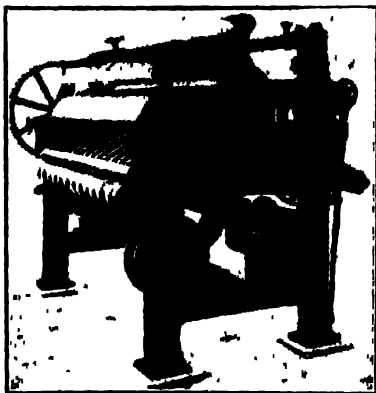
# The Sandy Hill Iron & Brass Works

Hudson Falls, N. Y.

Manufacturers of **Paper and Pulp  
Mill Machinery**

## THE CLARK-AIKEN CO.

Successors to  
H. C. Clark & Son Machine Co.  
**PAPER MILL MACHINERY**  
LEE, MASS.



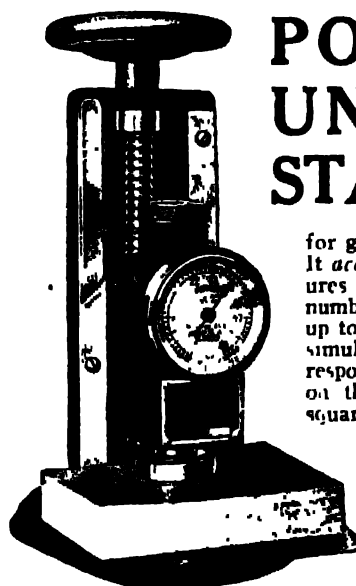
Revolving Paper Cutters—Rag Cutters—Cylinder Paper Machines—Washing and Beating Engines—Chilled Iron and Paper Calendars—Fan and Stuff Pumps—Engine Roll Bars and Bed Plates—

Cylinder Molds—Marshall Drives—Slitters and Rewinders—Reels—Dryers with Improved Packing Boxes—Wet Machines—Gun Metal and Rubber Rolls—Rolls Reground.

## The Perkins Pressure Bulker

(RUSSELL PATENT) PROVIDES A

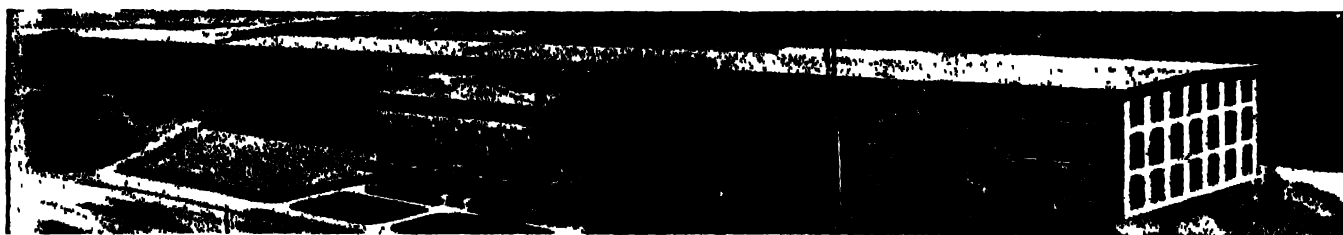
### POSITIVE UNIFORM STANDARD



for gauging the Bulk of Paper. It accurately records and measures the Bulk of any Book, number of Sheets, or Dummy up to 4 inches in thickness, and simultaneously records the corresponding clamping pressure on the surface in pounds per square inch

Write for particulars to  
Dept. P11

**B. F. PERKINS & SON**  
INCORPORATED  
Holyoke, Mass., U.S.A.



## KENWOOD FELTS - SEAMLESS FELTS - TAN JACKETS

**A SERVICE THAT IS AN ECONOMY**

A very definite quality of wool, of blending, of weave and of finish is required to create a papermakers' felt that will render most satisfactory results under specified conditions.

For years the Kenwood research department has been studying these requirements.

Given the quality of paper desired, the type of machine used and the speed at which the felt will run, Kenwood research department can aid materially in the elimination of your felt problems.

The opportunity to work with you to a saving in felt expense will be appreciated.

**F. C. HUYCK & SONS** KENWOOD MILLS **ALBANY, N. Y.**

JOHN ASPEGREN,  
President

Telephones { 6311  
6312 Murray Hill  
6313

NILS R. JOHANESON,  
Vice-Pres. & Gen. Mgr.

# SCANDINAVIAN AMERICAN TRADING COMPANY

50 EAST 42nd STREET NEW YORK CITY

## W O O D P U L P

Among other brands we sell the following Pulpes as Agents:

Iggesund Easybleaching and Strong Unbleached (Kraft) Sulphates

Annual Production 12,000 dry tons.

Tonnages of the above available for prompt and future delivery. Wire for prices.

Any kind—  
Any time—  
Any place—

### *La Boiteaux for Box Boards Paper Board Specialties*

Naturally, we sell you quality goods only. But in addition you get heaping good measure of service and most interesting prices.

It pays to line up with the leaders.

Let us quote you for immediate or 1922 deliveries.

**The C. L. LaBoiteaux Co.**

Cincinnati

Cleveland

Chicago

New York

## COLLINS MANUFACTURING COMPANY

SAMUEL R. WHITING, Pres. and Treas.

Manufacturers of  
LOFT DRIED PAPERS  
LEDGERS  
BONDS  
WRITING PAPERS

Mill: North Wilbraham, Mass.

Main Office:

208 Race Street  
Holyoke, Mass.

**F. J. KELLER COMPANY**  
INCORPORATED

200 FIFTH AVENUE

NEW YORK

FOREIGN AND DOMESTIC  
PAPER MAKERS' SUPPLIES  
CHEMICAL AND MECHANICAL PULPS  
COTTON, JUTE AND FLAX WASTES  
EAST INDIA MERCHANDISE

## PAPER and BOARDS ALL GRADES

Direct Mill Service to the Paper Merchant

*Barton Hill Company*  
INCORPORATED

501 Fifth Avenue at 42nd Street  
NEW YORK CITY

# BOOK PULP

"SOMETHING NEW IN PAPER-MAKING"

Our clean, bleached white Book Pulp possesses all the paper-making elements and advantages of bleached sulphite and soda pulp, at a cost slightly higher than that of ground wood pulp. It enables the practical paper-maker to cut costs and create new grades.

**New York and Maryland Pulp and Paper Co.**

522 Fifth Avenue

New York

**MILL—METUCHEN, N. J.**

We offer a full line of

# COLORS

and furnish precise directions on application for

**Beater Dyeing, Staining and Coating**

Half a century's experience enables us to furnish goods answering requirements  
and to give reliable service

**THE HELLER & MERZ CO.**

BOSTON

CHICAGO

NEW YORK

PHILADELPHIA

SPRINGFIELD, MASS.



**SOLE AGENTS** in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH CELLULOSE ASSOCIATION, HELSINGFORS, FINLAND**  
 comprising all and every sulphite, Sulphate and Kraft pulp mill in Finland. Manufacturers of superior grades of Bleached and Unbleached Sulphites, Easy Bleaching Sulphates and Kraft Pulps.

ALSO



**SOLE AGENTS** in the UNITED STATES, CANADA, MEXICO and CUBA for  
**FINNISH WOOD PULP UNION, HELSINGFORS, FINLAND**  
 a combination of the foremost Ground Wood Pulp and Board mills in Finland, makers of various kinds of boards and dry and wet Brown and White Mechanical Wood Pulp.

*Get the most for your money by getting next to our qualities and prices!*

**WOOD**  **PULP**

**LAGERLOEF TRADING COMPANY, Inc.**

**NEW YORK OFFICE:**

52 Vanderbilt Ave.

Tel. Murray Hill 4246-7

**CHICAGO OFFICE:**

1932 Conway Building

Tel. Main 1776-71

**INQUIRIES SOLICITED**

MEMBER OF THE A. B. C.

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

## FIFTIETH YEAR

PUBLISHED EVERY THURSDAY BY THE  
LOCKWOOD TRADE JOURNAL COMPANY, INC.

LESLIE R. PALMER, President

J. W. VAN GORDON, Vice-President

Telephone { 2380  
2381  
2382 }

Vanderbilt

10 EAST 39TH ST., N. Y., U. S. A.

Cable Address Catchow, New York

Western Publication Office—431 S. Dearborn Street, Chicago  
New England Office—Room 46, 127 Federal Street, Boston  
London Office—Stonhill & Gillis, 58 Shoe Lane

Washington Office—1 M. Lamm, 63 Home Life Bldg.  
Western New England News Office—Michael Connor, Holyoke

*THE PAPER TRADE JOURNAL is the pioneer publication in its field and has for many years been the recognized Organ of the Paper and Pulp Industry. Its circulation is greater than the combined circulations of all other publications in the field. Entered at New York Post Office as second class mail matter.*

### Terms of Subscription

UNITED STATES AND MEXICO . . . . . Per year, \$4; 6 months, \$2, 3 months, \$1  
CANADA AND FOREIGN COUNTRIES IN POSTAL UNION . . . . . Per year, \$6  
SINGLE COPIES . . . . . 10 cents

### Other Publications of Lockwood Trade Journal Company, Inc.

AMERICAN STATIONER AND OFFICE OUTFITTER (Weekly) . . . . . Per year, \$2  
LOCKWOOD'S DIRECTORY OF THE PAPER . . . . .  
STATIONERY AND ALLIED TRADES (Annual) . . . . . Per copy, \$7

Vol. LXXIII No. 22

NEW YORK AND CHICAGO

Thursday, December 1, 1921

## Table of Contents

### News of the Trade:

	PAGE
Production of All Papers During October	16
To Consider American Forestry Question	17
To Start Lican Mill at York in February	17
Long Price List Intersect Growing in Philadelphia	18
Demand Less Satisfactory in Philadelphia	18
Paul Wokert & Co. Formed	19
Ward Co. Makes Removal Plans	19
Hearst vs. Dexter Paper Co. to Be Heard in New York	20
Fire at De Grasse Paper Co. Plant	20
New Paper Mill for Bagalusa	20
St. Regis Makes Another Record Run	20
Production of Wood Pulp During October	22
Paper Market in Toronto Reported Spotty	24
Forest Problems of the North	24
Port Huron Paper Co. to Build Addition	24
Reduction in News Print Does Not Disturb Market	26
New Transportation Company Formed in Montreal	26
Affairs of the Canadian Export Paper Co.	26
To Represent Finnish Paper Mills Association	32
News of the Chicago Trade	34
Trade in Boston Rather Quiet	34
To Rehear Wages Question	34
Fires in Pulpwood Regions	34
New York Trade Jottings	36
W. G. McNaughton New Secretary of T. A. P. P. I.	36
Martin Paper Products Co. Formed	36
Suggests New Bank	39
Predicts Bright Future for Labrador	39
Nashville Paper Co. Chartered	39
To Resume Tariff Hearings	50
Current Paper Trade Literature	52
Analytical and Testing Method of Technical Association	52

	PAGE
Analyses of Sulphite Cooking Acid	52
Steam Economy in Paper Mill	54
Ventilation of Paper Machine Rooms	54
Paper Mill Electrification	54
Control Analyses of Sulphite Cooking Acid	54
Solution of Bleaching Powder	54
Recent Incorporations	54
Paper Box Manufacturers Dinner	54
Melrich Paper Co. to Build Big Plant	56
Boys Winslow Locks Paper Mill	56
New Paper Company May Go to Nashville	56
Paper Show Opens in New York	56
Improvement in Wisconsin	58

### Editorial:

Cotton Linters and Papermaking	38
Paper Mill Wages	38

### Special Articles:

Practical Considerations in Paper Costs	28
Selecting Steam Boilers and Water Softeners for Paper Mills and Power Plants	40

### Obituary:

Edward J. Bevan	34
-----------------	----

### Market Review:

New York Market Review	58
Market Quotations	59
Miscellaneous Markets	62

Want and For Sale Advertisements, Pages 64 and 65

## PRODUCTION OF ALL PAPERS DURING MONTH OF OCTOBER

According to Statistics Just Issued by the Federal Trade Commission, the Stocks on Hand at the End of October of News Print Equalled Five Days' Average Output, of Book Paper Ten Days' Average Output, of Paper Board Eight Days' Average Output, of Wrapping Paper Twenty-one Days' Average Output, and of Bag Paper Six Days' Output—Stocks of Other Paper.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 30, 1921.—The attached tabulation is a summary of production, shipments and stocks of paper mills in the United States for the month of October, 1921, compiled by the Federal Trade Commission. This summary is compared with the month of October, 1920, 1919 and 1918, and the average production and stocks based upon the production and stocks for the years 1918, 1919 and 1920. The mills have been classified for convenience into 12 groups according to the grades of paper made. Some mills making several grades appear in more than one group which causes duplication in the body of the tonnage tables in the number of mills.

The variation in the number of mills from one period to another is due in part to the fact that some mills do not run continuously on the same grade.

The stocks of paper carried by different mills depend not only upon the condition of the market but also upon the kind of paper made, trade customs, etc.

### Tonnage Summary

Production, shipments and stocks of paper, by grades, for the month of October, 1921, compared with October, 1920, 1919 and 1918 and with average production and stocks

Grade	Number of Mills	Stock on Hand at End of Month Net Tons	Production Net Tons	Shipments Net Tons	Stock on Hand at End of Month Net Tons
<b>New Print (Standard and Special Grades)</b>					
October, 1921	86	30,241	101,884	109,110	13,015
October, 1920	81	24,594	121,118	126,815	22,596
October, 1919	76	18,811	125,216	127,147	16,100
October, 1918	64	20,325	105,169	104,760	20,752
Average			117,112		15,763
<b>Standard News</b>					
October, 1921	67	25,241	91,487	100,503	18,222
October, 1920	62	21,804	114,233	116,385	19,651
October, 1919	55	11,143	110,502	112,599	12,646
October, 1918	50	15,683	94,330	93,111	16,731
Average			105,716		19,328
<b>Book (M. T., S. S. C. and Coated)</b>					
October, 1921	99	15,586	72,139	75,812	32,343
October, 1920	93	21,121	95,849	94,147	30,826
October, 1919	91	28,275	89,100	90,877	26,838
October, 1918	89	29,449	70,519	70,215	29,153
Average			81,250		28,198
<b>Paperboard—total (Straw, Fibre, Laid or Chip, etc.)</b>					
October, 1921	226	58,962	181,775	183,568	57,169
October, 1920	256	38,249	196,604	192,631	42,122
October, 1919	257	51,102	202,524	205,209	48,417
October, 1918	227	40,848	168,617	167,709	41,756
Average			175,318		45,530
<b>Boxboard</b>					
October, 1921	116	31,787	133,755	135,717	29,805
October, 1920	152	17,460	133,829	132,536	18,753
Average			117,101		19,303
<b>Wrapping (Kraft, Manila, Fibre, etc.)</b>					
October, 1921	139	56,313	64,518	68,453	52,378
October, 1920	148	19,570	73,100	71,970	20,706
October, 1919	161	44,212	67,110	71,726	39,596
October, 1918	151	33,888	66,827	66,120	34,595
Average			63,440		39,488
<b>Bag (all kinds)</b>					
October, 1921	43	3,014	19,463	18,740	3,737
October, 1920	40	2,015	17,005	16,658	2,362
October, 1919	47	4,016	18,073	19,324	2,765
October, 1918	41	3,491	17,005	16,558	3,938
Average			15,990		3,365

<b>Fine (Writing, Bonds, Ledger, etc.)</b>					
October, 1921	106	55,994	24,635	26,672	33,957
October, 1920	113	28,400	34,526	33,958	28,968
October, 1919	114	25,517	34,808	37,138	33,017
October, 1918	95	29,264	34,854	33,693	30,425
Average			31,174		31,835
<b>Tissue (Toilet, Crepe, Towel Wipers, etc.)</b>					
October, 1921	90	7,227	14,064	15,621	6,576
October, 1920	98	5,633	13,743	12,570	6,806
October, 1919	92	6,692	16,015	16,238	6,469
October, 1918	76	4,915	12,155	12,067	5,261
Average			13,494		6,453
<b>Hanging (No. 2 Blank, Optical, Life, etc.)</b>					
October, 1921	23	10,217	7,158	7,946	9,429
October, 1920	26	1,380	10,322	9,893	1,809
October, 1919	22	5,554	8,560	10,524	3,599
October, 1918	17	1,998	6,773	6,547	2,524
Average			7,618		3,296
<b>Felts and Building (Roofing, Sheathing, etc.)</b>					
October, 1921	44	2,778	33,959	34,524	6,513
October, 1920	44	10,755	28,867	26,101	13,461
October, 1919	41	7,991	31,193	33,138	5,956
October, 1918	51	8,418	24,358	24,192	8,514
Average			26,442		8,571
<b>Other Grades (Specialty not otherwise classified)</b>					
October, 1921	96	12,425	2,013	20,512	19,546
October, 1920	97	13,021	9,190	28,581	14,230
October, 1919	86	17,638	23,940	26,147	15,491
October, 1918	73	10,784	21,011	21,430	10,171
Average			22,82		12,784
<b>Total All Grades</b>					
October, 1921		267,807	712,108	560,558	344,657
October, 1920		168,510	6,156,61	613,121	173,980
October, 1919		219,008	6,160,008	6,877,665	198,248
October, 1918		125,608	5,72,103	5,21,191	187,869
Average			854,150		93,573

Note: The average production and stocks are based upon the annual reports for 1918, 1919, and 1920.

### Ratio of Stocks to Average Production

Comparing the stocks on hand at the domestic mills on October 31 with their average daily production based upon the combined production for 1918, 1919 and 1920, the figures show that

News print paper mill stocks equal 5 days' average output

Book paper mill stocks equal 10 days' average output

Paper board mill stocks equal 8 days' average output

Wrapping paper mill stocks equal 21 days' average output

Bag paper mill stocks equal about 6 days' average output

Fine paper mill stocks equal 28 days' average output

Tissue paper mill stocks equal 13 days' average output

Hanging paper mill stocks equal 32 days' average output.

Felts and building paper mill stocks equal 6 days' average output.

Miscellaneous paper mill stocks equal 23 days' average output

Total paper mill stocks of all grades equal about 11 days' average output

### Imports and Exports

The imports and exports of all grades of paper for September, 1921, compared with September, 1920, as shown by the records of the Department of Commerce were as follows:

	September 1921		September 1920	
	Pounds	Value	Pounds	Value
<b>Imports</b>				
News print	114,008,276	\$6,189,198	130,822,161	\$6,703,303
Book paper	1,138,7	10,316	242,296	32,529
Wrapping	905,862	17,067	774,606	79,181
Hanging		16,217		20,757
All other grades (a)		2,8076		244,263
<b>Exports</b>				
News print	2,243,276	117,891	6,318,131	447,134
Book paper	1,661,862	211,173	6,157,090	988,851
Paper board		88,086		455,241
Wrapping	1,674,144	127,377	4,279,099	564,424
Bag		54,053		209,085
Fine		209,164		588,023
Tissue		71,921		246,112
Hanging		42,651		95,805
All other grades (a)		406,847		1,046,354
Total imports		6,480,873		7,080,031
Total exports		1,329,163		4,644,029

(a) Includes some paper already converted into commercial articles.

News print is the only grade of which the United States is a heavy importer. The bulk of this tonnage, the value of which amounted to \$6,189,188 for September, 1921, is imported from Canada. The value of the exports of news print in September, 1921, is imported from Canada. The value of the exports of news print in September, 1921, amounted to \$117,891, which is about 2 per cent of the news print imported.

Book paper, news print wrapping paper, paperboard and fine paper were the principal grades exported, the combined value amounting to \$753,691 for September, 1921.

The value of the total imports of all grades was about 8 per cent less than for August, 1921. The value of the total exports for September, 1921, was \$3,314,866 less than the value of the exports for September, 1920, and \$5,151,710 less than the value of the imports for September, 1921.

#### Loss of Production

The idle machine time reported to the commission is shown by grades in the tabulation attached. This tabulation does not include the machines in twenty-five mills which were closed down completely. The reasons tabulated for lost time are lack of orders and repairs. "Other reasons" include lack of coal, lack of water power, etc. The time lost in October, 1920, is given by grades and reasons for purposes of comparison.

Grade	Lack of Orders		Repairs		Other Reasons		Total	
	1921	1920	1921	1920	1921	1920	1921	1920
News Print								
Number of machines	24	1	9	11	19	11	52	25
Total hours idle	2,971	448	632	1,157	1,198	581	5,801	2,186
Book Paper								
Number of machines	101	0	9	7	8	21	168	59
Total hours idle	11,091	0	1,953	5,161	2,446	1,718	18,390	6,879
Paperboard								
Number of machines	98	66	5	69	50	10	231	242
Total hours idle	19,755	14,016	4,873	1,035	1,011	2339	39,635	45,886
Wrapping								
Number of machines	35	7	31	31	17	31	101	72
Total hours idle	2,169	953	2,089	3,113	2,491	5,215	11,749	9,851
Bag								
Number of machines	7	0	8	9	1	2	21	11
Total hours idle	1,350	0	91	56	44	150	2,014	445
Fine								
Number of machines	97	15	53	76	88	38	239	79
Total hours idle	1,069	1,957	5,032	4,741	8,176	4,025	25,877	11,692
Tissue								
Number of machines	26	25	45	24	32	17	108	66
Total hours idle	3,586	3,451	3,059	3,154	3,357	3,172	10,002	9,780
Hanging								
Number of machines	6	0	1	7	1	1	10	13
Total hours idle	1,399	0	71	464	111	648	1,591	1,082
Felts and Building								
Number of machines	18	10	10	6	15	19	43	35
Total hours idle	1,921	1,599	541	1,018	1,752	3,131	3,736	5,850
Other Grades								
Number of machines	41	6	19	17	14	77	81	25
Total hours idle	6,703	1,166	1,287	1,938	3,319	77	11,339	3,181
Total number of machines	456	137	249	37	115	388	1,060	627
Total hours idle	21,675	24,609	19,767	29,303	18,841	11,740	130,149	96,832

\*Includes 2 1/2 hours due to water and power conditions.

### To Consider American Forestry Question

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 30, 1921. The whole American forestry question will be threshed out before the Agricultural Committee of Congress in a solid week of hearings beginning January 6.

This is the announcement made by Chairman Haugen of that committee, and comes as the climax of a year of work by the National Forestry Program Committee to get a thorough plan for the maintenance of the nation's forests before Congress for action.

It is just a year ago that the National Forestry Program Committee was named, with the paper industry, as represented by the American Paper and Pulp Association, the lumber industry as represented by the National Lumber Manufacturers' Association, the public as represented by the American Forestry Association, the publishers as represented by the American Newspaper Publishers' Association, and other national and local groups, as members of the committee.

From this union of widely different interested groups, all realizing the need for unified action in behalf of the forests, came the Snell bill, in which the widely differing ideals of different groups were harmonized in the first comprehensive plan for forestry legislation to be offered in Congress.

Hearings last January came as Congress was about to adjourn, and action went over to the sixty-seventh Congress, where Congressman B. H. Snell again introduced his forestry bill, as approved not only by the Federal Forest Service, the American Forestry Association, the American Paper and Pulp Association, the American Newspaper Publishers' Association, but also by the National Lumber Manufacturers' Association, the American Association of Wood Using Industries and other similar groups.

The introduction of essentially the same bill, carrying in addition a provision for Federal assistance in establishing Roads of Remembrance of Trees, followed in the Senate, Senator Medill McCormick, of Illinois, being the sponsor.

In all this campaign the paper industry has figured as one of the leaders. Its program outlined a hearing before the committee was formed, was adopted in principle, and the Central States Forestry League, consisting of the eight States of the lake region, has practically accepted for the Central States program, the recom-

mendations of the forestry committee of the American Paper and Pulp Association of which Frank L. Moore is chairman.

### To Start Lefean Mill at York in February

YORK, Pa., November 28, 1921. Charles Lefean expects to start his new mill for the manufacture of sheathing, car lining and felt about February 1, 1922. The equipment of the plant will consist of two 1,000-pound beaters, one refining engine and one 62-inch cylinder machine, trimming 50 inches. The power used will be steam and water. The plant will have a productive capacity of 15,000 pounds per twenty-four hours.

Mr. Lefean started in the manufacture of sheathing, car lining and felt in 1898 at Hoffmanville, Md. He removed to York in 1899, where he has made the same grade of paper since that time. In 1918 he gave his son an interest in the business and in September, 1921, withdrew from the firm to build his present mill on his farm at East York.

## LONG PRICE LIST INTEREST GROWING IN PHILADELPHIA

**Master Printers Meet and Pass Resolutions Insisting That "Long Price List" Be Put Into Effect January 1, 1922—Typothetae to Renew Attempt to Put Into Effect Systematic Collection of Paper—Park Weikert Resigns From the D. L. Ward Co. and Forms the Concern of Park Weikert & Co., to Deal Exclusively in Cordage—Demand for Both Fine and Coarse Papers Shows Some Falling Off.**

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., November 28, 1921.—The fine paper dealers most decidedly, and the coarse to a smaller extent, are intensely interested in the development of the Typothetae warfare for the "long price list." These master printers in special meeting at the Typotheta rooms passed resolutions in which they "insisted" that the "long list" must be established by the paper distributors on or before January 1. As forecast in these columns, the battle over the "long list" which is taking place all along the Atlantic seaboard will concentrate here because this is the home town of President J. Linton Engle, of the United Typotheta of America—a fact well understood by the National Paper Trade Association and to which may be explained the presence here during the week of National Secretary William C. Ridgway, who was in consultation with members of the Philadelphia Paper Trade Association. Simultaneously with its declaration of warfare over the "long list" the Typothetae relaunched its co-operative movement for the group gathering of waste and its disposal to the highest bidder among the paper stock dealers supplanting, if the scheme is found to be practical, individual dealing by collective bargaining. However, the best opinion in the trade is that neither the "long list" nor the joint stock sales will become effective because while both theoretically are plausibly attractive, practically they are so fraught with obstacles and objections as to be unworkable.

### Long Price List Resolutions

The "long list" resolutions of the Typothetae follow:

"WHEREAS, The printer being a retailer of paper and other materials entering into the manufacture of printing and, as such, is entitled to the same protection as is accorded to wholesale purchasers in practically all branches of American Commerce and

"WHEREAS, The 'long price' list was advocated and endorsed by the Thirty-fifth annual convention of the United Typothetae of America and conforms to practices in other industries to bring about proper protection to the retailer by the wholesaler and

"WHEREAS, The members of the Typotheta of Philadelphia being of the firm belief that the adoption of the 'long price list' by the paper merchants of Philadelphia would be of lasting good and mutual benefit to the industry and to the paper merchants and that the printer is entitled to a differential in common with other industries, therefore he it

"RESOLVED, That the Typothetae of Philadelphia hereby notify the paper merchants of Philadelphia that they desire and insist that the 'long price list' be put into effect January 1, 1922. The resolutions were signed by William Fell, William Sharpless and S. Clayton Wicks as the Trade Customs Committee of the Typothetae.

### Action Is in Nature of Surprise

Though this attitude on the part of the employing printers of Philadelphia long was foreshadowed in these columns the action came with some surprise to the paper distributors because they were of opinion that the Typothetae on this occasion as previously, decades ago, would not take the drastic stand it did. Until the matter formally is considered by the Paper Trade Association which is scheduled to meet during the coming week, none in the trade cared to comment publicly on the Typothetae stand. But

President Allen E. Whiting of the Association did not hesitate to say that the correlated action of the Typothetae in sending out a letter commending to the favorable attention of its members when buying paper, the firm of E. Latimer Jr., 126 North Fourth street, which came out with a so-called "long list" was unwise. There are in the paper trade division of the Typothetae most of the larger fine paper firms of the city; the Latimer firm is not technically a member although the head of the fine paper division, Frederick S. Balch, took out a membership only a few days ago.

### No Favorable Action Likely

But though official action remains to be taken, it is certain that the Philadelphia Association will not act favorably on the demand at this time if for no other reason than that the question is absolutely one of national importance and must be settled nationally and not locally. However, the matter will be discussed temperately although the paper dealers are not inclined to look with favor upon the attitude of the Typothetae in insisting on the long list, with unofficial but often expressed threats of boycotting houses which do not consent. To the suggestion made by the printers that the paper distributors are taking their cue from National headquarters and that proof of that fact lies in the correspondence with Secretary Ridgway, copies of which are alleged to be in possession of the Typothetae who intimate that the course of the paper men may be shown to be in restraint of trade, the reply is made by the paper distributors that the implied threat of the Typothetae to boycott paper house is much more close to being actionable than any steps which the National Paper Trade Association has taken. While superficially there continues a friendly relation between the two factors to the present controversy feeling runs deep beneath the surface and a bitter contest with probably reprisals on both sides is anticipated.

Meanwhile Mr. Latimer, the only dealer to come out openly with the "long price list," claims to be in receipt of many letters of commendation and of large orders for fine papers attributable to the position he has taken. He said during the week that his future course would not be influenced to the slightest degree by the Paper Trade Association from which, he said, he had resigned some months ago.

### Demand Less Satisfactory

Though the impetus of increasing demand which was felt so satisfactorily during the last few weeks eased off considerably during the last seven days for both fine and wrapping paper distributors there is nothing in that experience to cause alarm or to lessen the belief that the bad times of the early part of the year really are over. On that point the trade is still a unit. Opinions differ, however, as to the extent which the recent betterment was due to seasonable or to permanent causes.

Fine paper distributors had less comment to make on the lessened business of the week than did the coarse paper dealers. Demand from the local printing trade has not been heavy all season and during the week it showed but little decline from the preceding period. But the brisk demand from the out-of-town printing and publishing trade which has been quite active, showed a larger falling off. However, the trade is not disposed to draw long-time conclusions from the experiences of a single week and just as the more conservative were inclined to hold back declarations of prosperity ahead because of the gain since Labor Day so now they are by no means of the opinion that the loss of the week is of a permanent character, and are disposed to believe that pre and post Thanksgiving holiday influences played a considerable part in the situation. Prices were firmly maintained for all grades, particularly for the cheaper because the distributors are certain that mill rates will advance on these grades in harmony with the upward trend of sulphite.

### Coarse Paper Sales Fall Off

The coarse paper dealers reported a falling off in the business both with the large consumers and with the smaller buyers. Here,

too, however, prices continued steady. But much of the snap to buying experienced earlier in the month was absent during this last week of November. Of course the holiday played a considerable part in the wrapping paper trade as it did in the fine paper. But the dealers of coarse papers are quite as optimistic as the fine regarding the future and while some hesitate to express an optimistic opinion as to business until the close of the year they do believe that the turn of the year will mark the beginning of a very decided upward movement. If freight rates are decreased as seems probable, a big boom to buying will follow.

#### Collective Sales of Waste Paper

The initial attempt of the Typotheta to promote collective sales of printers' waste undertaken six months ago, was not prosecuted because at that time such waste was really a drug on the market. With improved conditions, however, an attempt is again being made to improve both the systematic collection of waste and the purchase price. During the week a questionnaire was sent out from headquarters asking the printers to supply the approximate weight of all waste per month, whether it is graded and sorted or mixed; what percentage is hard waste, sort white and mixed, whether the waste is baled, whether a contract exists with any paper to take all or part of the products, and finally whether the printer addressed will co-operate with the Typotheta in an effort to obtain better prices through a blanket contract with a responsible house.

#### Park Weikert & Co. Formed

The resignation from the D. L. Ward Company of Park Weikert, head of the cordage department on Friday morning of last week came with surprise to the firm although for some days it had been rumored on the street. Indeed the story was specific that Mr. Weikert would go with the quartet of Ward employees which a week ago went with the Whitaker Paper Company. Mr. Weikert resigned in order to go into business for himself. On December 1, he will become head of the incorporated concern of Park Weikert & Co., which will deal in cordage exclusively. He is regarded as among the best informed men on cordage in Philadelphia, having had twenty years experience with the Brucke and Holtzman-Corr companies before entering the Ward employ eight years ago. The Ward cordage business is one of immense proportions.

#### Ward Co. Changes

The Ward Company plans for removal to its new headquarters and warehouse at Front and Washington avenue have been completed, the old location at Sixth and Ranstead streets will be vacated on Friday evening and on Monday the new offices will be in operation and it is believed without the slightest interference with business, so thoroughly have the removal plans been worked out. The firm will occupy for offices some 9,500 square feet on the second floor of the immense warehouse of which it will be the tenant of the basement, all the second floor and parts of the third and fourth floors aggregating more than three-quarters of the entire space available. The offices will occupy the east side of the second floor with abundant daylight and ventilation. Access will be from Washington avenue and without the necessity of crossing railroad tracks. These run along one side of the building giving opportunity for unloading a dozen cars simultaneously. On the other side a score of wagons and trucks simultaneously can load and unload, the entire first floor being open and especially arranged for handling stock. Five ten-ton elevators run from the first floor to the upper stories permitting the most expeditious stock movements. The company will maintain at the old headquarters a service station under charge of Thomas J. Curry where a full line of samples and of dummies will be maintained. Service to the consumers will be more expeditious than before because while for several years all the stock has been shipped from the Washington avenue warehouse, the location of the executive offices a mile away caused delays and prevented that close personal over-

sight and care which can be given in the new location. The shuttle service or continuous trips of an auto delivery from the warehouse to Sixth and Ranstead streets or neighborhood for prompt deliveries of small rush orders will be maintained.

#### General News of the Trade

President John H. Smex, of the Garrett-Buchanan Company and president of the Beverly National Bank, Beverly, N. J., narrowly escaped serious injury on Friday when his automobile, driven by Clayton Bush, crashed into the back of a wagon near Edgewater Park, N. J., where the Smex summer home is located. Mr. Smex was riding with his two grandsons when the driver, in order to avert a collision, swerved sharply and sideswiped the other vehicle. Both vehicles were damaged but no persons were injured. The Garrett-Buchanan Company will this week add to its sales force J. G. Owens, formerly with the Whiting-Patterson Company.

Eugene Rowe, formerly with the D. L. Ward Company and for a short time with the Enterprise Paper Company, has accepted a position with S. S. Garrett, coarse paper and twines, Third and Spruce streets.

President H. S. Zellerbach, of the Zellerbach Paper Company, San Francisco, who is traveling through the East making a study of the model paper distribution houses, spent part of the week at the D. L. Ward Company plant which he regarded as most admirably arranged for the prompt dispatch of business.

Charles A. Shells, assistant Secretary W. A. Hentz, of the D. L. Ward Company, and Frank Bickheiser, for several weeks in charge of the information desk, will hereafter give part of their time visiting the outside trade in this city.

Representative Twine, of the Bayless Manufacturing Company, made trade rounds during the week.

#### Bids and Awards for Paper

(FROM OUR KODAK CORRESPONDENT)

WASHINGTON, D. C., November 30, 1921.—The purchasing officer of the Government Printing Office has received the following paper bids:

Two hundred sheets 22 $\frac{1}{2}$  x 28 $\frac{1}{2}$ —120 pounds White Bristol Board, R. P. Andrews Paper Company, at \$3.30 per hundred sheets, and Whitaker Paper Company, at \$6.75.

One ream 21 x 32—50 $\frac{1}{2}$  No. 28 White Writing Paper, R. P. Andrews Paper Company, at \$40.40 per ream.

Three thousand six hundred pounds 21 x 32—36 No. 20, H. M. F. Blue Writing Paper, Whitaker Paper Company, at \$0.95 per pound, Dohler & Mudge, \$0.925, R. P. Andrews Paper Company, \$0.885, Old Dominion Paper Company, \$1.139; Whiting-Patterson Company, Inc., \$1.025; Maurice O'Meara Company, \$0.975; Coy, Hunt & Co., \$1.324, and Wilkinson Bros. & Co., \$1.64.

Four thousand eight hundred pounds 22 x 34—32 No. 16, H. M. F. Yellow Writing Paper, Whitaker Paper Company, at \$0.95 per pound, Dohler & Mudge, \$0.925, R. P. Andrews Paper Company, \$0.885; Old Dominion Paper Company, \$1.139; Whiting-Patterson Company, Inc., \$1.025; Maurice O'Meara Company, \$0.975; Coy, Hunt & Co., \$1.324, and Wilkinson Bros. & Co., \$1.64.

Two thousand pounds 26 $\frac{1}{2}$  x 41—100 Light Green Cover, Coated Paper, Whitaker Paper Company, at \$1.14 per pound; or \$0.956 for 5,000 pounds; Dohler & Mudge, \$0.99 for 5,000 pounds; Coy, Hunt & Co., \$1.09, and Thos. Barrett & Son, \$1.125.

The Manufacturers' Paper Company has been awarded the contract by the Bureau of Supplies and Accounts, Navy Department, for furnishing 40,000 rolls of paper towels at \$8.600, bids for which were opened on October 25.

Wilkinson Brothers Company has been awarded the contract by the purchasing officer of the Government Printing Office for furnishing 10,000 pounds (2,000 sheets) of 34 x 44—No. 10 trunk board at \$0.227 per pound, bids for which were opened on November 8.

## HEARST VS. DEXTER PAPER CO. SUIT TO BE HEARD IN NEW YORK

**Latest Move in the Action Growing Out of the Sale of the Pulp and Paper Plant at Dexter, N. Y., to the Publisher of the New York American and Other Papers Will Take Place Before Justice DeAngelo—Defunct Plant of the St. Regis Paper Co. Makes Another High Record Run, Producing 182.9 Tons of News Print in Twenty-four Hours—Corinth Mill of I. P. Co. Is Busy**

[FROM OUR REGULAR CORRESPONDENT]

WATERLOO, N. Y., November 28, 1921. The next move in the action of William Randolph Hearst, publisher of the New York American and other papers, against the Dexter Sulphite Pulp and Paper Company, James F. Campbell and Clarence E. Campbell brought to cancel his contract for the purchase of the defendant's property, will be a hearing in New York City on December 2. Attorneys for the plaintiff have subpoenaed as witnesses Frank L. Moore of this city, former head of the Newton Falls Paper Company; Paul Smith, who conducts a big resort in the Adirondacks, and Senator James Emerson. The hearing will be held before Justice P. C. J. DeAngelo, in the offices of Attorney Nathan Burkan, who with Senator E. T. Bracket and Cobb, Cosgrove & Kimball represents the plaintiff. The defendants are represented by Senator Elon R. Brown, Harold L. Hooker and Purcell Cullen & Pitcher, of this city.

The action grows out of the sale of this plant to Mr. Hearst for \$3,500,000. At a recent hearing in the case it developed that the plaintiff claimed that there was improper action in the manner of the sale, and that \$500,000 of the purchase price was to have been divided in proportions as agreed upon between the men who engineered the deal.

It is asserted by the attorneys for the plaintiff that Senator Emerson introduced Paul Smith to F. L. Moore, who in turn introduced Dr. James F. Campbell to Mr. Smith, and then Mr. Smith presented Dr. Campbell to Mr. Zittel, who was agent for Mr. Hearst. The scheduled hearing is for the purpose of interrogating these men as to the detail facts in connection with the transaction.

### Mr. Carlisle to Attend New York Hearing

Floyd L. Carlisle, president of the St. Regis Paper Company, went to New York today to be present at a conference to reopen the question of wages in paper mills. The conference will be held at the Murray Hill hotel with Judge Frank Irvine, head of the arbitration commission, members of the commission, representatives of the paper manufacturers committee and labor heads present.

In the agreement reached through the offices of the arbitration committee it was stipulated that any change in living conditions might be a basis of reopening the case before December 1.

It is understood here that the manufacturers are more concerned over the wage being paid unskilled labor than any other feature of the case, and will seek a reduction. It is pointed out that the cost of living has been reduced and that labor conditions are very easy, and that with a low figure on paper there should be a change in the working agreement.

### Fire at De Grasse Paper Co. Plant

Fire in the mill of the De Grasse Paper Company at Pyrites Sunday morning caused a loss of \$2,500, which is covered by insurance. An employee of the company was engaged in repairing a pump located in the basement when a candle was knocked from his hand into a pile of "broke" which quickly burst into flames.

The building is concrete and fireproof, and the fire fighting

apparatus was put in operation and the flames were confined to the basement. No paper nor machinery was damaged, but some belting was damaged.

### I. P. Co. Busy at Corinth Mill

About 12 car loads of paper a day are being manufactured by the Corinth mill of the International Paper Company, and the production will be increased as orders warrant, according to a statement made here by Robert W. Jones of that plant who came to this city to pass the Thanksgiving holiday with his parents, Mr. and Mrs. Gary M. Jones, 165 Park avenue. He said that through an injunction obtained recently the unions are restrained from picketing the mills or in any way interfering with workmen, so no trouble is now being experienced there.

Mr. Jones was in the employ of the International at the Brownville plant when the strike ensued. When the company took a group of local men to Corinth on October 1, he was in the squad. It was planned to take them to the Rumford Me. plant, but at the last minute the plans were changed and the Corinth mill was made the destination.

### Lumbermen Using Motor Trucks

An absence of snow for sledding in the Adirondacks has caused some lumbermen to utilize motor trucks for delivery. Reynolds Brothers Company has 7,500 cords of pulpwood at Reynoldston ready for delivery. Snow roads are not available, and it is now planned to draw it by trucks to the mill of the Malone Paper Company in Malone.

### St. Regis Makes Another Record Run

The Defunct plant of the St. Regis Paper Company again established a new high record run on Saturday. On November 17 the high run of 182.9 tons of news print paper were run in 24 hours. This record was raised to a fraction less than 184 tons in the latest record. Joseph Crockenberg, superintendent of the mill, was absent on both occasions, and the men demonstrated that they could do business in his absence. General Manager C. C. Burns said today that the mill has been running an average of about 177 tons a day of late.

### New Paper Mill for Bogalusa

BOGALUSA, La., November 28, 1921. A new paper mill, the exact duplicate of the present one, and employing approximately the same number of men, will be erected here at a cost of more than one million dollars. Plans for the new plant were announced by W. H. Sullivan, mayor, following a dinner in the Pine Tree Inn in honor of the forestry policy committee of the United States Chamber of Commerce, guests of Mr. Sullivan.

Members of the committee and lumbermen from many parts of the country visited Dixie Ranch, near Shidell, and viewed the thousands of acres of second growth pines now ready for the pulp mill. Members of the committee commented favorably on the Salmen holdings at Shidell as a fine example of what can be done throughout the country.

Following the visit to the plant the party was taken in automobiles to the forest, where they viewed a large tract of cut-over timber lands and noted the work of reforestation being carried on by the Great Southern Lumber Company. The committee was escorted on the trip by the Bogalusa Chamber of Commerce.

The party arrived in Bogalusa Tuesday evening on a special train provided by Mr. Sullivan. They were taken to the Pine Tree Inn and a banquet accorded them. Addresses were made by members of the forestry policy committee, M. L. Alexander, commissioner of the Louisiana Department of Conservation; J. E. Rhodes, secretary-manager of the Southern Pine Association; Walter Parker, manager of the New Orleans Association of Commerce, and Henry Hardtner, lumberman and pioneer experimenter in reforestation of Uruia, La. Mayor Sullivan presided.

**HIGH COLOR!**  
**CLEAN!**  
**STRONG!**

**MT. TOM**  
**BLEACHED SULPHITE**

*May we quote?*

**A. J. PAGEL & CO., Inc.**

**347 Madison Avenue**

**New York**

## PRODUCTION OF WOOD PULP DURING MONTH OF OCTOBER

Statistics Just Issued by the Federal Trade Commission Show that the Stocks on Hand at the End of October of Ground Wood Equalled Twenty-five Days' Average Output, of News Grade Sulphite Nine Days' Average Output, of Bleached Sulphite Three Days' Average Output, of Easy Bleaching Sulphite Three Days' Average Output, and Mitscherlich Four Days' Average Output

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 30, 1921 In connection with the Federal Trade Commission's current statistics of the paper industry, a summary of the monthly reports from manufacturers of wood pulp and other kinds of pulp used in paper making is submitted herewith for the month of October, 1921. The table shows the kind of pulp, the stock, production, pulp used and shipments for the month. The pulp shipped during each month represents only pulp shipped to a concern different from the one producing it. Loss of production is shown by giving the idle machine time reported by each company for each kind of pulp.

### Pulp Production

The following is a tabulation of the production, pulp used by the company producing it, shipments to outside concerns, and stock of finished pulp, in tons or 2,000 pound on an air dry basis, for October 1921, compared with October, 1920, for the operating mills. The average production is based upon the reports covering the years 1917, 1918, 1919, and 1920 and the average stocks are based upon the stocks carried for the years 1919 and 1920.

	No. of Mills	On Hand at End of Month	Produced During Month	Used During Month	Shipped During Month	On Hand at End of Month
		Net Tons	Net Tons	Net Tons	Net Tons	Net Tons
<b>Ground Wood Pulp</b>						
October, 1921	153	137,67	21,811	94,400	7,877	119,406
October, 1920	160	95,875	18,518	117,056	11,135	94,150
October, 1919	159	130,880	110,074	117,950	9,296	112,227
Average			117,716			112,165
<b>Sulphite, News Grade</b>						
October, 1921	68	23,527	58,234	48,632	7,682	22,142
October, 1920	62	13,151	22,117	5,717	9,707	17,130
October, 1919	62	19,497	71,000	50,501	11,128	19,758
Average			61,922			19,000

<b>Sulphite, Bleached</b>						
October, 1921	32	6,725	41,315	22,457	21,002	4,581
October, 1920	30	1,826	49,504	26,493	23,389	4,448
October, 1919	30	10,383	51,915	27,425	25,790	9,083
Average			44,096			8,710
<b>Sulphite, Easy Bleaching</b>						
October, 1921	8	689	2,403	3,492	961	634
October, 1920	8	1,386	6,069	4,173	2,521	761
October, 1919	8	1,805	7,389	3,525	2,728	1,731
Average			6,474			1,555
<b>Sulphite, Mitscherlich</b>						
October, 1921	6	1,574	5,801	3,861	2,540	1,064
October, 1920	7	915	7,153	4,438	4,768	1,142
October, 1919	7	1,67	7,232	4,694	2,851	1,159
Average			6,708			1,655
<b>Sulphite Pulp</b>						
October, 1921	21	2,612	16,196	10,443	6,156	2,409
October, 1920	21	3,537	20,099	14,066	4,817	4,759
October, 1919	20	6,611	17,169	10,709	6,249	7,682
Average			14,832			5,908
<b>Soda Pulp</b>						
October, 1921	27	5,017	27,368	19,564	10,635	6,281
October, 1920	27	4,655	32,227	19,703	17,363	5,846
October, 1919	27	6,576	25,147	18,218	16,555	7,340
Average			27,068			5,938
<b>Other Than Wood Pulp</b>						
October, 1921	1	17	502	518	76	15
October, 1920	1	48	607	377	87	248
October, 1919	6	187	865	785	134	128
Average			410			150
<b>Total For All Grades</b>						
October, 1921		180,434	234,200	207,397	56,430	161,537
October, 1920		111,331	198,877	210,971	71,282	138,162
October, 1919		177,027	308,110	247,993	75,151	169,408
Average			247,036			180,880

Total stocks of all grades of pulp in the mills on October 31 amounted to 161,837 tons. All mill stocks decreased during the month.

### Ratio of Stocks to Average Production

Comparing the stocks on hand in the domestic pulp mills at the end of the month with their average daily production based on the reports covering the years 1917, 1918, 1919 and 1920, the figures show that:

Groundwood pulp stocks equal 25 days' average output. News grade sulphite mill stocks equal 9 days' average output. Bleached sulphite mill stocks equal 3 days' average output. Easy bleaching sulphite mill stocks equal 3 days' average output. Mitscherlich sulphite mill stocks equal 4 days' average output. Sulphite mill stocks equal 14 days' average output. Soda pulp mill stocks equal 5 days' average output. Mill stocks of "other than wood pulp" equal less than 1 days' average output. Total mill stocks of all grades equal 14 days' average output.

### Loss of Production

The idle machine time of grinders and digesters reported to the commission for the month of October, 1921, is shown in detail in the following tabulation. The reasons tabulated for lost time are lack of orders, lack of power and repairs.

Grade	Lack of Orders 1921*	Repairs 1921	Other Reason 1921	Total 1921	1920
<b>Ground Wood Pulp</b>					
Number of grinders	25	58	505	588	601
Total hours idle	8,423	13,771	149,496	171,590	143,866
<b>Sulphite, News Grade</b>					
Number of digesters	9	60	71	140	62
Total hours idle	1,638	7,238	6,016	10,892	5,756
<b>Sulphite, Bleached</b>					
Number of digesters	20	6	26	58	30
Total hours idle	1,106	544	1,007	2,737	2,425
<b>Sulphite, Easy Bleaching</b>					
Number of digesters	3	2	0	5	9
Total hours idle	37	64	0	96	1,701
<b>Sulphite, Mitscherlich</b>					
Number of digesters	0	7	0	7	13
Total hours idle	0	7	0	257	546
<b>Sulphite Pulp</b>					
Number of digesters	12	9	0	30	28
Total hours idle	864	234	864	1,962	2,796
<b>Soda Pulp</b>					
Number of digesters	61	9	43	113	23
Total hours idle	11,060	234	4,805	16,099	380
<b>Other Grades</b>					
Number of digesters	2	0	2	4	4
Total hours idle	682	0	552	1,234	631
<b>Total number of grinders and digesters</b>	138	160	656	954	770
<b>Total hours idle</b>	23,805	18,332	162,730	204,867	158,103

\*Lack of orders 1920 included in "Other reasons." †Includes 125,791 hours due to water and power conditions.

**A Good Jobber's  
Good Resolution  
for Jan. 1, 1922**

***"THIS YEAR I WILL BUY  
LAWRENCE  
GROCERS' BAGS  
EXCLUSIVELY"***

The Lawrence line is so selected that any jobber handling Lawrence Grocers' Bags exclusively is in position to **secure and retain** the best patronage in his locality without loading his warehouse with many brands.

*Improved Self Opening and Old Style Square*

**GROCERS' BAGS**

*May we discuss with you our  
plans and your plans for 1922?*

**The Lawrence Bag Co.**

**Miamisburg**

**Ohio**

*James Lawrence, President*

*Tom G. Means, Vice-President*

## PAPER MARKET IN TORONTO REPORTED RATHER SPOTTY

**Some Weeks Are Fairly Satisfactory While Others Are Quiet —Quotations, However, Are Said to Have Become Stabilized and Further Revisions in Prices Are Not Likely to Occur for Some Months—R. A. McInnis, Manager of the Abitibi Power & Paper Co., Suggests Big Convention of Pulp and Paper Men and Others to Consider Questions of Handling Slash, Reforestation and Fires.**

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., November 28, 1921.—Business in the paper line continues spotty. Some weeks are exceptionally good and others are quiet. Trade has been running this way for the past three or four weeks. Discussing the situation, a leading Toronto jobber said that he regarded prices of paper on all grades as sufficiently high at present and there should be neither a downward nor upward revision for months to come. The main thing was to impress upon consumers that quotations were stabilized. There is some cutting going on on the part of the jobbers in kraft paper, but figures on all other lines of wrapping are well maintained, although one mill is still selling half a cent below the others.

Paper box plants are busy and some are running pretty nearly to capacity. A complaint has been made in regard to certain shoe manufacturers buying their cartons outside of Canada. American firms have been purchasing large amounts of set-up paper and paying four to five dollars more per ton than current prices, and it is said that their object, in so doing, is to keep the price down on the other side. The demand for all kinds of book, writing and bond papers is brisk just now owing to the great mass of electoral publicity being sent out by the various candidates in the present election. The mills are being flooded with printed matter and this makes times good with the book paper manufacturer and the printer.

### Forest Problems of the North

At a big meeting of the Temiskaming and Northern Ontario Boards of Trade, held at Iroquois Falls, Ont., R. A. McInnis, manager of the Abitibi Power and Paper Company, was re-elected president for the coming year. In his address, Mr. McInnis dealt with the handling of slash, reforestation and fires and said he had the assurance of the Ontario government that the whole matter would soon be taken up. He suggested a big convention of saw mill men, pulp and paper men and settlers to get ideas. A less dangerous way of handling the slash would have to be planned and enforced and he understood that the government would increase the restriction on the operators.

### Bonuses for Cutting Pulpwood

The Ontario government recently awarded tenders for the cutting of red and white pine, spruce and other pulpwood in certain sections. In the township of Jack, district of Sudbury, the bid of the Harris Tie and Timber Company, of Ottawa, was accepted, the bonus offered for the spruce pulpwood being \$100 per cord in addition to the usual Crown dues of eighty cents. For other pulpwood the bonus is forty-five cents, plus the dues of forty cents. In township 2B, Mississauga Forest Reserve, the tender of McFadden and Malloy, of Spragge, was accepted, their bonus for spruce and other pulpwood being seventy-five cents plus the usual Crown dues.

### Future Pulpwood Supply Threatened

Dr. Howe, of the Faculty of Forestry, University of Toronto, has sounded a warning note in regard to the future supply of pulpwood for Ontario and other eastern provinces. He says

that spruce is being crowded out on the forest areas owing to the methods of lumbering employed. In some places spruce is being cut down six times as fast as it can be replaced by nature. Dr. Howe surveyed more than ten thousand acres of cut over pulpwood lands to determine the rate at which spruce and balsam were re-establishing themselves after logging. He established twenty-five acres of sample plots where conditions affecting the regeneration of the pulpwood species could be closely studied through a series of years. In co-operation with certain pulpwood companies, more than six hundred acres of experimental cuttings have been established. The idea of this is to find some modification of the present cutting methods that will increase the amount of young growth of spruce.

### Will Resume Survey in Ontario

Some two years ago a survey was undertaken by the Commission of Conservation of the forest and pulpwood resources of Ontario, under the direction of Roland D. Craig, of Ottawa. The work has been interrupted by the abolition of the Commission of Conservation, but it is expected that it will be resumed by the Dominion Forestry branch next year. Aeroplanes will be used extensively in the surveys. The work that has been done by means of the machines during the past season has given every satisfaction and expedited matters greatly.

### More Rational System of Timber Cutting

Timber diseases are constantly taking their toll in the unregulated forests of Ontario, according to Prof. J. H. Faull, of Toronto, who says that trees get sick just like people. Destructive as forest fires are, disease in trees cause greater loss. Two of the chief causes are needle blight of white pine and heart-rust. The Forestry School, of Toronto, has undertaken studies for the purpose of elucidating the causes and surveys will give a guidance in the choice of the lands to be leased and that are ready for harvesting. Dr. Faull says that a knowledge of timber diseases will make possible a more rational system of leasing and cutting.

### Good News to Paper Producers

It is good news to the pulp and paper manufacturers of the Dominion that a ten per cent cut in freight rates is to go into effect at the beginning of December on all steam roads in Canada. This is not a straight ten per cent cut off the present freight charges, but is to be deducted from the increases in rates made effective in December, 1920, when increases of forty per cent in the east and thirty-five per cent in the west, made effective in September, 1920, were reduced to thirty-five per cent in the east and thirty per cent in the west. The new order, issued by the Board of Railway Commissioners, will further decrease freight rates on pulp, paper, lumber and other commodities to a basis of twenty-five per cent in the east and twenty per cent in the west, above those effective prior to the first advance in September, 1920.

### Notes and Jottings of the Trade

The pulp and paper mills of the Spanish River Pulp and Paper Company at Espanola, Ont., which have been running on part time for several months, are now operating to capacity.

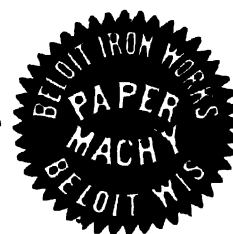
William R. Young, president of the Regal Paper Box Company, Toronto, was at Roche's Point, Ont., last week, attending the funeral of his father, Francis Young.

Henry S. Dickenson, of Toronto, who, for many years was prominently in the paper business in Woodstock, Ont., died last week, aged seventy-two.

### Port Huron Paper Co. to Build Addition

[FROM OUR REGULAR CORRESPONDENT]

PORT HURON, Mich., November 28, 1921.—Port Huron Sulphite and Paper Company has let the contract for the erection of a \$48,000 addition to its plant. The building is to be 100 by 70 feet in dimensions, two stories and basement high.



# If Properly Applied Ball Bearings

on

Breast Rolls  
Table Rolls  
Wire Rolls  
Felt Rolls  
Cylinder Moulds  
Primary Press Rolls  
and Drives

will save wires, felts and  
power.

*We apply them properly*

**ASK US**



## REDUCTION IN NEWS PRINT DOES NOT DISTURB MARKET

**Reduction of \$5 Per Ton by the Canadian Export Co. Had Been Discounted and This Together With the Fact That It Is the Consensus of Opinion That the Paper Industry Is Now on the Road to a General Recovery Accounts for the General Equanimity With Which the Announcement Was Received—Fraser Timber Syndicate May Establish Pulp Mill at Prince George.**

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., November 28, 1921—The announcement by the Canadian Export Paper Company, Montreal, of the reduction in the price of news print for the first quarter of 1922 of \$5 a ton from the current price of \$80 has had less effect on the market for pulp and paper securities than had been anticipated. On the Montreal Stock Exchange there was a decline of about one point in the principal issues. Apparently the reduction had already been discounted, and this together with the fact that it is the consensus of opinion that the paper industry is now on the road to a general recovery accounts for the equanimity with which the announcement was received. During the past few months there have been those who expected to see the price of news print go much lower than \$75 per ton, some of the bears even predicting that it would drop to \$60. Of course, no one will undertake to venture an authoritative announcement on the general course of prices for the ensuing year, but it is agreed among those in the best position to judge that conditions seem to warrant the belief that the price now announced may be taken as having reached approximately the normal for a considerable period to come.

The trade in news print is different from that in book paper, kraft and pulp. In these commodities the market broke wide open when the deflation period began to operate and the market for paper other than news print as well as the market for pulp has not yet been firmly reestablished on a profitable operating basis. As regards news print the outcome has been more satisfactory owing to the fact that the readjustment has been of an orderly character and well-controlled. It is just a year ago that the peak prices for the first quarter of 1921 were announced at \$130 per ton. One organization put its export rate up to \$140, but soon revised it in the interests of harmony. The rate is now down \$55 per ton or slightly over 70 per cent.

In reviewing this period the Montreal Star says: "Looking back over the stormy year for the industry since the peak prices and the strenuous efforts on foot to make the readjustment go more quickly it is perhaps better to leave to the imagination what might have happened had not the industry pulled together to combat organized deflation propaganda. Their manufacturing position with larger accumulations of high priced raw materials was not different in its general aspects from other industries which suffered disastrously, but very few will blame the leaders for adopting a policy designed to avoid the disaster which overtook others. Those who suffered would have doubtless done the same thing to save themselves if they had possessed both the will and the favoring circumstances to avoid it."

Whatever variations may henceforth occur in the quotation for news print, manufacturers regard the incident as passed from their point of view and the market concurs. The high cost material will eventually disappear, and with the assistance of reserves taken from the profits of more prosperous periods the mills will be able to continue to operate on a profitable basis. The nightmare of the past year will work off, and it is quite within the range of possibilities that the market will see a resumption of

marked interest in the paper stocks. The industry is so great and its future so vital to Canada that it is not one of those things which will remain quiescent. So far as interest in shares is concerned once the public is satisfied that conditions are straightened away on a constructive basis and steady profits are assured it may be reasonable to look for some real activity in association with a constructive market.

### The Canadian Export Paper Co.

In its circular letter announcing the price of news print for the first quarter of 1922 the Canadian Export Paper Company took the opportunity of announcing that its reorganization plans, recently undertaken, are now complete and that E. L. Crooker, of the Laurentide Company, is in charge of the company's affairs, assisted by a permanent board of management representing Price Brothers & Co., and the Brompton Pulp and Paper Company. The reorganization was brought about by a desire to bring the mills which export products through the company's agency into closer relationship with their customers.

The company now controls for export purposes some 800 tons of news print a day, the output of three of the largest and best equipped mills in Canada. This enormous tonnage enables it to undertake the entire requirements of even the largest consumers of news print without inconvenience or risk of disappointment, while the company's extensive operations also make possible the economical handling of its products and the prompt solution of any emergencies that may arise.

Mr. Crooker, the manager in charge, has long been associated with the paper business, and for several years past as sales manager for the Laurentide Company, Limited, in which capacity he has represented the company both in the United States and Great Britain, as well as in Canada. He has an extensive acquaintance with newspaper publishers in all three countries.

### New Transportation Company Formed

A development of much interest to the pulp and paper industry is the decision of the Canadian Export Paper Company to discontinue its Traffic Department. Guy Tombs, who has been the general traffic manager, has, with the company's approval, formed a company to carry on the business of traffic managers and freight brokers under the name of Guy Tombs, Limited, with offices at 285 Beaver Hall Hill, Montreal. Arrangements have been made by the company with Mr. Tombs to supervise the supervision of paper sold by the company, and Mr. Tombs will, therefore, continue to direct the traffic of the individual mills in the Canadian Export Paper Company's organization. The new transportation company has secured a Dominion charter.

Guy Tombs, the president and manager, has been active for nearly thirty years in Canadian transportation service, and was formerly assistant freight traffic manager, Canadian Northern Railway Eastern Lines, where he labored for eighteen and a half years. Mr. Tombs is also vice-chairman of the Transportation Bureau of the Montreal Board of Trade, a member of the Canadian Pulp and Paper Association, Canadian Manufacturers' Association, and other commercial bodies, and was made chevalier of the Order of Leopold II for organizing Belgian relief work in Canada.

Mr. Tombs is taking with him the personnel and duties of the Traffic Department of the Canadian Export Paper Company, Ltd., and associated mills, with which he has been connected for the last two and a half years.

This is the first industrial traffic bureau in Canada to undertake all transportation work, and special attention will be given to the handling of overseas business through Canadian ports.

Guy Tombs, Limited, will be in charge of the traffic for the following companies: Belgian Industrial Company, Limited; Brompton Pulp and Paper Company, Limited; Canada Paper

(Continued on page 32)

# J. Andersen & Co.

21 East 40th St., New York, N.Y.

## A-1 Bleached Sulphite

Agents for  
**KELLNER-PARTINGTON PAPER PULP CO. LTD**  
Borregård, Norway

# WAYAGAMACK

## KRAFT PULP

*Uniform in Quality  
Essential for Strength Requirement*

**The Pulp and Paper Trading Company**  
21 East 40th St., New York, N. Y.

Sole Agents for United States for  
**CANADIAN KRAFT, Ltd.**      **Three Rivers, Canada**

# PRACTICAL CONSIDERATIONS IN PAPER COSTS\*

By JOHN R. LOOMIS, of LOOMIS, SUTHERN & FERNALD, CERTIFIED PUBLIC ACCOUNTANTS

Edward N. Hurley, when chairman of the Federal Trade Commission in an address once said:

"Among the essentials of efficiency in any business, correct and adequate knowledge of that business is first. That is that the foundation and the corner stone of a knowledge of business is the knowledge of costs. But the unfortunate fact is that a large proportion of business men in the country do not know their costs accurately."

These remarks were true when they were made and are hardly less true today. If conditions were normal, we might perhaps point with pride to the progress which has been made in the cost accounting of the paper industry, both in the higher general standards of accounting and to the more widespread recognition of the importance of proper cost statements, but under the extraordinary conditions of today, the progress made has hardly been sufficient to offset the greater problems and difficulties which have arisen.

## Does Not Meet the Real Problem

There are more plants which actually have cost systems in use and better statements of costs are furnished by such systems, but the mere introduction of better methods and even the obtaining of accurate costs does not meet the real problem. The mere compilation of proper cost figures, important as it is, does not meet the practical situation which, as Mr. Hurley points out, is that business men must know their costs accurately. Cost figures may merely be history, and as history may represent expensive volumes on library shelves, they only come to have practical value as they are properly understood and interpreted and given active life by the practical men who can and will apply them in the operation and administration of the business.

Manifestly, the right system is essential because no proper conclusions can be drawn from improper figures, and correct figures cannot be expected if the system is so involved and complicated that the clerks working upon it do not have a clear conception of what the figures they enter are supposed to mean.

Accordingly, the chief consideration in any system is simplicity. This was one of the endeavors of the writer in his original classification of paper costs under the divisions of stock, conversion, and burden, which are the classifications now generally recognized, having been widely distributed by the American Paper and Pulp Association, and also set forth in the report made by the writer for the Special Committee on Uniform Costs for News-Print Manufacturers in 1916.

## Classification of Various Items

This classification of the various items entering into the cost of news print paper, sulphite and groundwood, grouped under the general headings of stock, conversion and burden, is shown by the following table which, with slight changes in items of stock and conversion, can be made applicable to any paper product.

Paper	Sulphite	Groundwood
(a) Stocks -	(a) Stock -	(a) Stock -
1 Sulphite, own make	1 Spruce	1 Prepared Wood
2 Sulphite, purchased	13 Balsam	13 Spruce
3 Groundwood, own make	15 Hemlock	15 Balsam
4 Groundwood, purchased	16 Chips	
5 Sundry fibres	17 Sulphur	
6 Waste paper	18 Lime	
7 Wrappers	19 Limestone	
8 Fillers		
9 Alum		
10 Bleaching		
11 Color		
12 Size		

\*Address before the Connecticut Valley Local Division of the Cost Association of the Paper Industry, October 10, 1921.

(b) Conversion	(b) Conversion	(b) Conversion--
20 Manufacturing labor	20 Manufacturing labor	20 Manufacturing labor
21 Pulp stones	21 Pulp stones	21 Pulp stones
22 Machine clothing	22 Machine clothing	22 Machine clothing
23 Wires	23 Wires	23 Wires
24 Screen plates	24 Screen plates	24 Screen plates
25 Belting	25 Belting	25 Belting
26 Lubricants	26 Lubricants	26 Lubricants
27	27	27
28 Repairs, material	28 Repairs, material	28 Repairs, material
29 Repairs, labor	29 Repairs, labor	29 Repairs, labor
30 Fuel, coal	30 Fuel, coal	30 Fuel, coal
31 Fuel, oil	31 Fuel, oil	31 Fuel, oil
32 Fuel, wood	32 Fuel, wood	32 Fuel, wood
33 Fuel, waste	33 Fuel, waste	33 Fuel, waste
34 Taxes	34	34
35 Miscellaneous operating	35 Miscellaneous operating	35 Miscellaneous operating
36 Water rent	36 Water rent	36 Water rent
37 Power, electric	37 Power, electric	37 Power, electric
38 Power, steam	38 Power, steam	38 Power, steam
39 Lighting	39 Lighting	39 Lighting
40 Mill office	40 Mill office	40 Mill office
41 Barn or teaming	41 Barn or teaming	41 Barn or teaming
42 Switching	42 Switching	42 Switching
(c) Burden	(c) Burden	(c) Burden
43 Taxes	43 Taxes	43 Taxes
44 Insurance	44 Insurance	44 Insurance
45 Rents	45 Rents	45 Rents
46 Interest on bonds, etc.	46 Interest on bonds, etc.	46 Interest on bonds, etc.
47 General and administrative expenses	47 General and administrative expenses	47 General and administrative expenses
48 Reserve for depreciation	48 Reserve for depreciation	48 Reserve for depreciation

## Stock, Conversion and Burden

This table shows all the elements entering into the cost of production, grouped under three general classes, viz., stock, conversion and burden—stock including all raw material used, conversion including labor and all materials used in converting the raw material into the finished product, burden including, generally, all charges necessary to be included in the cost of manufacturing other than stock and conversion, such, for instance, as taxes, insurance, rents, interest on bonds and other obligations, reserve for depreciation.

The items grouped under stock and conversion give little trouble, as their character as elemental products is so generally recognized, they offer no difficulty either in calculation or allocation. It is with the introduction of the factor of burden that the science of costs becomes more complicated. The minor elements of burden offer no particular difficulty. It is the items of interest on bonds and other obligations and reserves for depreciation that give rise to argument and discussion. The fact remains, however, that these items must be considered in determining a reasonable profit on a product, and should be included in determining the cost of manufacturing to a mill.

Such a statement of costs as this manifestly comes under the classification of a "process cost" as distinguished from a job cost, and is the simplest form of cost accounting which can be used. It might practically be said that this treats the entire production of the plant as a single "job." Not merely does it have the advantage of simplicity, but where this can be done it has the further advantage of greater accuracy because the margin of error on a large production treated as a single unit is reduced to the minimum.

## "Job Costs"

When consideration is given to mills which do not operate on a single product but have various grades of paper on which cost varies, we can no longer consider the entire production as a single unit but must break our costs up into "job costs," segregating the cost of the entire plant to the various jobs which constitute the entire production. This is a necessary complication and cannot be avoided, but it should not cause one to lose sight of the importance of simplicity in the accounts. In fact, the greater the number of subdivisions which must be made in the accounts, the more impor-

(Continued on page 30)

# PROLONGS LIFE *of* EQUIPMENT

The Bird Continuous Beater Attachment prolongs the life of beater bars, bedplates, jordan fillings and screen plates.

## BIRD MACHINE CO.

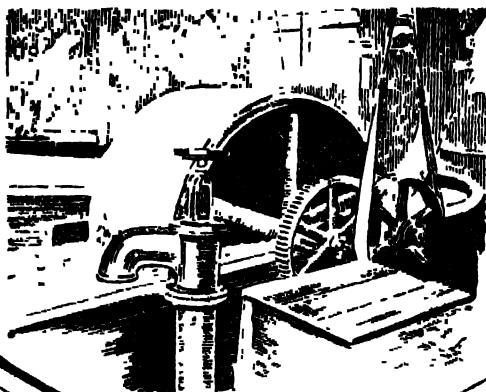
South Walpole,

Mass

*Western Representatives:*  
T. H. Sullivan & Co., 1718 Republic Bldg.,  
Chicago, Ill.

*Canadian Distributors of Bird Machinery:*  
Canadian Ingersoll Rand Co., Ltd.,  
960 St. James St., Montreal, Canada

88 1501



## PRACTICAL CONSIDERATIONS IN PAPER COSTS

(Continued from page 28)

tant it is that the general plan of accounts should be simple and readily understood by the busy man.

The cost statement should meet the demands of the busy man, so that he may readily see what is going on. Records should be so clear that the ordinary man can understand them, the ordinary clerk understand what he is doing and the officer can follow them easily.

If any practical use is to be made of cost statements, it should be possible in a rapid review to see what are the important elements of cost and what the effect on final costs may be of variations in any factor at any point. The important factors should not be lost in a mass of details relating to immaterial factors.

It is not the purpose of this paper to discuss system details, and the outline given has only been for the purpose of illustrating the practical considerations which arise in the use and interpretation of the cost figures.

The importance of simplicity has been referred to, and important aid in obtaining this is a clear chart of accounts, understood both by the operating men and the accounting department, and this should be accompanied by a definite statement of the items to be included in each subdivision of the accounts and the bases to be used in overhead apportionment. No system of accounts is going to be satisfactory unless it is based on a plan and grouping of the accounts which the accounting department feels it is practicable for them to handle and which the operating men feel will give them the practical information which they want. Furthermore, such a chart, once agreed upon, must not be allowed to become a dead letter, but as changes in organization and operations from time to time occur, any necessary changes in the chart must be made, or the cost accounts will contain erroneous figures or will be used as the basis for wrong conclusions.

### Importance of Accuracy

The importance of accuracy has also been referred to, but this is a point which is often misunderstood. There are figures in the cost statements which can be presented with the same definiteness and the same standard of accuracy that applies to a cash account, but there are other figures which are, and must be to a certain extent, estimates. We can show with accuracy the cost of raw materials purchased, and we can supplement the general cost statement with records of materials consumed. Sometimes we can show the actual cost of the particular materials which entered into a definite lot of paper. Usually, however, we can only assume that the raw materials consumed represented some part of the total materials which had been purchased, and we take these into cost at a price determined in a definitely recognized manner. We can tell exactly the amount of the pay roll for any period, but when we come to apportion the pay roll to the various departments and jobs, the apportionment involves the use of estimates. Depreciation is a definite factor of cost, but its amount can only be determined by estimates. From a certain standpoint, it can be said that no cost accounts are more accurate than the estimates upon which they are based, but, recognizing the extent to which estimates are essential, we can set up a standard of accuracy for the cost accounts through insisting that the calculations made should be correctly made and that the figures used should represent what they are supposed to represent.

This standard of accuracy must be applied not only to the dollars of cost, but also to the statistical information which is no less important. All stock or furnish should be stated at actual weights. By the use of actual weights (air dry) the manufacturer is enabled to obtain the percentage of stock used in production and the loss in yield quite free from the matters of estimate. These percentages

and the quantity used per ton of production are all of even greater value to the mill superintendent than the dollar and cents value of each item of stock used and conversion expenses.

### An Erroneous Impression

In the determination of the cost of production, the only object in the minds of many is the final cost of a mill. This is, however, an erroneous impression, the information obtainable in the development of costs is even more valuable in other directions. It furnishes the necessary data by means of which excessive costs can be reduced, by eliminating unnecessary expenses or increasing the production in such departments where inefficiency as indicated by the cost sheet is shown. The greater value in the developing of costs is the attracting to the attention the items entering into production with a view of improvement in production. The value is more in watching the items entering into production than of developing figures as a basis of fixed selling prices. With this in mind the cost sheets should reflect as much information as possible, particularly the quantities of materials consumed that their percentage of consumption, production and consequent loss in yield may be readily obtainable.

The basic idea of the operating man as he reviews cost statements is usually to see where troubles have arisen and what steps are necessary for their correction or prevention. To enable him to do this the costs must be so stated that responsibility can be located.

The cost statement should be worked up so that the management can see where the trouble lies, what the cost of inefficiency may be, so they can take up the actual facts with the proper man, and not try to hold the man responsible for features beyond his control.

Your machine man is responsible for the amount of power used on his machine, but he is not responsible for the cost per unit of power that comes from your power house. Your power engineer is not responsible for the price of coal, nor for the excess load on the power plant in time of low water, but he is responsible for the amount of power generated per ton of coal. He may or may not be responsible for the power loss in transmission, but somebody must be. He may or may not be responsible for the overload of the power plant when the turbines break down, but somebody must be.

### Must Locate Responsibility

The various cost and operating statements must be so compiled and presented that they will enable the operating men to locate this responsibility. More emphasis has been laid on locating responsibility for troubles, but manifestly it is no less important to locate responsibility for particularly good work. The detection and the elimination of troubles will keep a business to its present standard of efficiency, but that standard will be raised by noting how and where exceptionally good work is done, so that the whole plant may benefit by the lessons to be learned from the good work of one man or one department.

This review of the statements by the operating men is one of the best audits that the cost accounts ever get. Clerical errors will occur, so that one job or one department will be over- or under-charged with amounts which should go elsewhere. Minor errors may escape attention, but any material error should be caught in the review by the operating men and, when found, the proper correction should be made in the cost statements. The making of such corrections has a good moral effect on both clerical and operating forces. It will also prevent using erroneous figures in future estimates, with perhaps serious financial loss to the business.

Assuming, then, that we have a correct, simple and adequate system of cost accounts, working well in the office and satisfactory

(Continued on page 32)

# MICROMETER CALIPERS

## Automatic

Desk size 8 inches by 9 inches—6 in. Dial.

Measuring accurately from one thousandth up to 250 thousandths of an inch. Made in U. S. A.

---

# CADY AUTOMATIC PAPER *and* BOARD SCALES

Size 19x22 inches.

Our Paper Scales gives the weight automatically of any sheet of Paper or Board weighing from one lb. up to 120 lbs. per ream of 480 sheets and 500 sheets and 500 sheets in kilograms.

---

Our Board Scales gives number of sheets of size of sheet you are weighing it takes to make a bundle of 50 lbs.

---

Our Tag Board Scale weighs 500 sheet count from 5 lbs. up to 1000 lbs. Our Felt Scale automatically gives the weight per 108 Square Feet graduated in tenths of a pound.

---

**These machines are carried in stock by**

**C. B. HEWITT & BROS., 16-24 Ferry St., New York**

---

**E. J. CADY & COMPANY**

**326 W. Madison Street**

**Chicago, Ill.**

## PRACTICAL CONSIDERATIONS IN PAPER COSTS

(Continued from page 30)

to the operating men, we may then look at the relation of costs to selling prices.

Prices should represent the cost of production and the cost of selling, together with a reasonable margin of profit, but no manufacturer can make an arbitrary rule that his selling prices will be his costs plus what he believes is a fair margin of profit. Competition is a dominant factor.

There is no uniform basis of costs between mills, the location of the plants, the owning or purchasing of timber, woodlands bought years ago resulting in a less stumpage charge, variations in the labor market, better or poorer judgment in buying materials, etc., all contribute to placing the price to be gotten for the product on a competitive basis.

### Manufacturers Must Not Be Misled

No mill can run 100 per cent of the time on the particular kind of product which for it may be most profitable. It has to handle some less profitable product. No manufacturer can afford to mislead himself by figures which show that a certain product will give him little or no profit if it is a product which must be turned out to keep his plant running at current capacity. He may even be faced with the question of whether he should keep his plant running or should close it down. It then becomes a practical consideration whether the manufacturer whose cost sheet shows that Superfine Writing is costing \$1.50 per pound, should take an order at a market of \$1.50 per pound in order to preserve his organization and retain his trade until such time as conditions become so corrected as to enable him to run under normal conditions of profit.

### Time of Change of Prices

\* Furthermore, the paper trade is today at a time of change of price. Cost of producing paper six months ago is not a definite indication of what it is going to be this month or the month after. Manufacturers have to use their old costs as a guide, but they must have their costs so classified and arranged that they can tell just what difference in cost of producing paper will result from a change in the price of pulp, change in the volume of production, change in the labor scale, change in the price of fuel, etc., or change in the length of run on a single order or class of paper.

We can even go further and say that known future costs cannot be entirely a basis for fixed price. For example, the manufacturer who has on hand or has contracted for sulphate at a price above the current market should not lose business merely because he will refuse to sell at any price which will not fully cover the cost on the materials which he is going to use, nor, on the other hand, should the manufacturer lose the profit he is entitled to because he happens to have materials which have cost him less than the current market.

### A Strong Illustration

A strong illustration of this latter point is in those mills which make their own pulp.

Some paper manufacturers have been foolishly improvident in not giving fair consideration to the value of the timber they have been using; denuding pulp lands and figuring in many cases that they have made a profit on paper when all they have been doing was realizing an increased value of the timber lands they own.

### When It May Be Worth While to Take Loss

If a mill manufactures its own pulp and can sell that pulp on the market for a figure more than can be realized through finished paper, there is a question of whether the mill is not really losing money. It may be worth while to take such a loss temporarily in order to hold the business and tide the mill over until a time of better prices or better manufacturing conditions. But the mill does

not make money on paper manufacturing unless it can realize more from its paper than can be gotten out of a mere disposition of pulp as such.

## REDUCTION DOES NOT DISTURB MARKET

(Continued from page 26)

Company, Limited, Canadian Export Paper Company, Limited; Canada Carbide Company, Limited; Canadian Electro Products Company, Limited, Canadian Match Company, Limited, Donnacona Paper Company, Limited, Howard Smith Paper Mills, Limited, Laurentide Company, Limited, Maguire, Paterson & Palmer (Canada), Limited, Price Brothers & Co., Limited; Provincial Paper Mills, Limited, Pembroke Lumber Company, Limited; St. Maurice Valley Pulpwood Company, Limited, The Menjogagues Lumber Company, Limited, and St. Maurice Paper Company, Limited.

### Riordon Company and Quebec Government

Hon. Walter Mitchell, who has resigned the position of treasurer for the Province of Quebec to become a candidate for the Federal Parliament, has taken the opportunity in one of his public speeches of repudiating the charge that the Quebec Government holds notes from the Riordon Company amounting to \$556,000. He states that on November 30 last the total amount owed by the company was \$127,000, for which the provincial government possesses enormous securities in the control of the company's rich timber limits.

### New B. C. Pulp Mill

It has transpired that it is the Fraser Timber Syndicate which is negotiating with the British Government for the establishment of a pulp mill at Prince George. The syndicate states that it proposes to build a 100 ton mill with provision for an increase to 250 tons.

### Exports for Eastern Canada

Pulpwood from points west of Weymouth, N. S., as far as Brazil Lake is being shipped by the Sissiboo Pulp and Power Company to its mills at Sissiboo Falls. It expects to commence the grinding of pulp as soon as enough water power is available. At the close of navigation on the Saguenay it will take its steamers to Halifax and expect to ship 5,000 tons of pulpwood to England the first week in December.

## To Represent Finnish Paper Mills Association

Parsons & Whittemore, 299 Broadway, New York, have sent the following notice to buyers of news print.

"As a buyer of news print, interested in the sources of news print supply in the world, you will no doubt be glad to learn that the Finnish Paper Mill Association (comprised of every mill in Finland except one) has appointed us their exclusive agent for the United States.

"We are in a position to commence shipments January. Our present price is 3¼ cents per pound c. i. f. Atlantic ports.

"Finnish news print has been used with great success by many publishers who take great pride in the appearance of their publications. It compares favorably with American or Canadian news print. On account of its good reputation, importers buying average or low quality Continental news print, not coming from Finland, have represented their paper to be Finnish in order to sell it.

"While the quality produced by all the mills in Finland is practically uniform, there is a possibility that you might prefer one mill's special manufacture and if this is so we could supply you with the product of any mill you would care to designate.

"The tonnage we have available for the American market over the year 1922 is limited and we would ask you to give us an early opportunity of quoting on your specifications."

Established 1886

## **Organization**

## **Service**

*THE pre-eminence of this organization in its field is not the result of meteoric success. It is the logical and legitimate outgrowth of 35 years of ceaseless effort to serve and to satisfy. It is a natural development of the conspicuously high type of service it has always striven to render to its clientele.*

# **M. GOTTESMAN & COMPANY**

INCORPORATED

**18 East 41st Street**

**New York, N. Y.**

### **BRANCHES AT**

**Holyoke, Mass.  
Kalamazoo, Mich.**

## Obituary

Edward J. Bevan

The death of Edward J. Bevan, F.I.C., of the well-known firm of Cross & Bevan, whose name is a household word to those interested in the chemistry of cellulose and paper making, is announced in the current issue of *The Paper Makers' Monthly Journal*, London, England, just at hand.

Mr. Bevan was 65 years of age on the day of his death, which took place on October 17.

Mr. Bevan studied chemistry at Owen's College, Manchester, and soon after took up a post as chemist with Alex. Cowan & Sons. Later on he became associated with Mr. Cross and started practice in their now well-known laboratories in New Court.

For many years Mr. Bevan held the appointment as public analyst to the Middlesex County Council and it was therefore appropriate that he should take a prominent part in connection with the Society of Public Analysts, having acted in various official capacities, being one of the vice-presidents for some years before his death.

## News of the Chicago Trade

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, November 28, 1921. While business here among the paper jobbers seems to be going along fairly well, and here and there is evidence of very good business, the question which is being asked is, is 1922 going to show a return to more normal conditions? Some members of the trade here feel that there will be no signs of commercial recuperation until late in the spring of next year, while others are of the opinion that business will pick up almost immediately following the taking of inventory. It has been explained by jobbers and merchants, that one reason for some of the slow buying right now, is that many of the consuming customers are buying carefully in anticipation of January inventory. After this inventory a better demand is looked for, and in some circles it is felt that the results of this inventory will give all trade a little more stimulus.

Parker, Thomas & Tucker Paper Company, now located at Franklin street and Lomax place, will shortly move to 520-26 South Canal street, where it has rented almost one-half of an eight-story building. It has leased the new location for a term of six years at a term rental of approximately \$100,000.

Twenty-two members of the paper box and supply trade held a bowling contest at the North Chicago Bowling Club rooms, 1425 North Wells street, Friday evening, November 25. Several pick-up team matches were played and some fairly high scores were run up. The bowling club of the allied paper box and supply trade meets at these club rooms four Fridays of each month, when a very enjoyable get-together jovial time is had by all who attend.

The Jordan Paper Box Company, 339 North Crawford avenue, capitalized at 200 shares of no par value, is a new paper box enterprise in this city, which will deal in and manufacture paper boxes. Incorporators are Frank H. Jordan, William R. Jordan, and George S. Marks.

## Trade in Boston Rather Quiet

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., November 30, 1921.—Every indication points to a listless finale for the year 1921 as far as the paper business is concerned in this section. Trade continues dull—a condition which has existed for weeks—with the possible exception of a few houses handling fine grades. Some of these concerns are brave enough to admit "times are improving." Others are willing to say the same but can't back it up with sales slips.

Shrewd buyers who know the local situation predict a busy

three months beginning next January, a fair spring and a quiet summer. One buyer pointed out that before any "real" business made its appearance here a foreign market must be secured. This man handles old paper and rag stock and is one of the most successful in his line. He points out that there are too many mills for the population.

In connection with old papers it was interesting to note this past week the activities of the domestic dealers attempting to get the mill business through Boston houses. In some instances they do business direct with the mill—when times are dull they show up at the jobbers and attempt to get business through them.

Houses handling "fine grades" are more optimistic. In some instances the holiday trade aids them—in others it does not. With political fights on in Boston and in surrounding cities and towns there is an evident increase in poster stock. Announcements, invitations, etc., are in demand and mercantile houses are using large amounts of typewriter papers.

The board business remains the same—quiet, but with some future orders in sight. Some orders are being placed but with instructions not to deliver goods until the last of the year. "Hand to mouth" buying prevails in all branches. Few contracts are being made and with the stock-taking period close at hand enthusiasm is an unknown quantity.

## Fires in Pulpwood Regions

There were 14,463 forest fires in the pulpwood regions of the United States during 1920, burning over 2,059,408 acres, according to a report compiled by the Woodlands Sections of the American Paper and Pulp Association, in co-operation with the United States Forest Service.

The tremendous losses by fire tremendously handicap the paper manufacturers in their efforts to determine a future forest policy for this industry, for the problem of artificially planting new forests would be enormously minimized if the loss by fire in growing forests could be eliminated.

In the New England states alone there were 2,419 fires, of which 1,619 were in Massachusetts, 164 in Maine, 542 in New Hampshire, 54 in Vermont and 40 in Rhode Island. The area burned over in Maine was the largest of this group, being 39,803 acres. Fires this year have done even more damage, though no figures are yet available, and the same is true of New York. Here there were 479 fires in 1920, burning 35,176 acres.

In the group of states including Pennsylvania, Maryland, Ohio, Virginia, West Virginia, North Carolina and New Jersey there were 4,928 fires, of which 1,597 were in Pennsylvania and 1,655 in North Carolina. The total area burned over was 716,863 acres.

In the lake states of Michigan, Wisconsin, Minnesota, there were 776 fires, burning 567,910 acres, and in the great forest states of Washington, Oregon and California, there were 4,861 fires, burning 645,648 acres.

The total damage by these fires throughout the country was \$6,319,641.

Col. W. B. Greeley, Chief Forester of the United States Forest Service, has said that if the forest fire menace could be eliminated, the problem of future forests for the country would be greatly simplified.

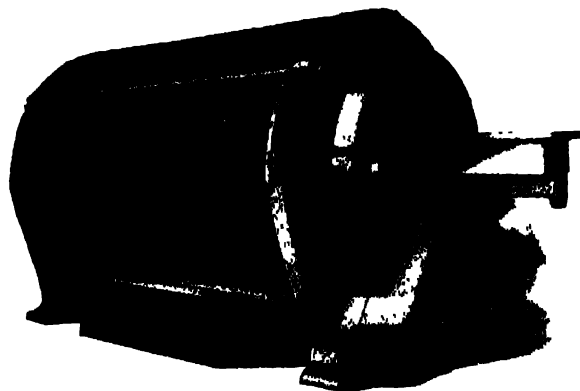
## To Rehear Wage Question

An appeal for a rehearing on the wage question in paper mills was made Tuesday at a conference held at the office of the St. Regis Paper Co. between F. L. Carlyle, representing twelve manufacturers, and John P. Carry, president of the International Brotherhood of Paper Makers. In August decreases of 10 to 26 per cent were registered and now it is felt that reduced cost of living warrants a further reduction. The appeal was granted and a rehearing will be held December 8, 1921.

# **"IMPCO" TAILING SCREENER**

## **FOR SCREENING GROUND WOOD TAILINGS**

Very Low  
Power  
and  
Upkeep Expense



Delivers  
Rejections Free  
from Good  
Stock

ANOTHER UNIT OF OUR CLOSED SYSTEM FOR PULP SCREENING

WRITE FOR FULL DETAILS

CORRESPONDENCE A PLEASURE

**IMPROVED PAPER MACHINERY CO.**

**Nashua, N. H.**

**SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA**

# **WHALEN SULPHITE PULPS**

Made from the SITKA SPRUCE of BRITISH COLUMBIA  
Noted for Fibre, Color and Strength

**SNOWWHITE  
BLEACHED  
SULPHITE**

**GLACIER  
EASY BLEACHING  
SULPHITE**

**SWAN  
STRONG  
SULPHITE**

As exclusive Sales Agents for all of the products of the WHALEN PULP & PAPER MILLS, LTD., in addition to stocks at the mills, we will carry large stocks of the above well-known brands in New York, thus insuring prompt deliveries.

Your inquiries addressed to any of our offices will bring prompt quotations by wire.

**CANADIAN ROBERT DOLLAR CO., Limited**  
**VANCOUVER, B. C.**

### **U. S. ADDRESSES**

Robert Dollar Co., Robert Dollar Bldg., San Francisco.  
Robert Dollar Co., 15 Moore Street, New York, N. Y.  
Robert Dollar Co., Harris Trust Bldg., Chicago, Ill.  
Robert Dollar Co., L. C. Smith Bldg., Seattle, Wash.

### **FOREIGN OFFICES**

Robert Dollar Co.,  
Shanghai, Hong Kong,  
Hankow, Tientsin,  
Ichang, Chungking, and  
Pekin, China; Kobe,  
Japan; Calcutta, India;  
Manila, P. I.; Singapore,  
S. S.

## New York Trade Jottings

The Majestic Mills Paper Company, 464 Broome street, has increased its capital stock from \$100,000 to \$200,000

\* \* \*

The Union Bag and Paper Company has declared an extra dividend of \$2.00 a share on its capital stock, payable December 5.

\* \* \*

H. F. Harrison, sales manager of the West Virginia Pulp and Paper Company, is on a business trip through some of the Western States. He will return to New York December 5.

\* \* \*

The Vocational Education Committee of the Pulp and Paper Industry of the United States is sending a circular letter to the men in the industry emphasizing the importance of books of a technical nature to all who aspire to positions where advanced knowledge is essential.

\* \* \*

The Lagerloef Trading Company, Inc., has transferred its office from 18 East 41st street to the Vanderbilt Building, 52 Vanderbilt avenue, where more spacious quarters will better accommodate the interests of the company. Telephones Murray Hill 4246 and 4247.

\* \* \*

Dr. G. J. Esselen, Jr., of Skinner, Sherman & Esselen, Boston, Mass., will speak on "Some By products of the Forest and Cotton Fields" at the regular meeting of the American Section of the Society of Chemical Industry at the Chemists' Club Friday evening, December 2.

\* \* \*

The directors of the Crane Brothers Paper Company have declared an extra dividend of 3½ per cent on its preferred stock in addition to the regular semi-annual dividend of 3½ per cent on that issue. Both dividends are payable December 15 to stockholders of record at the close of business on November 15.

\* \* \*

C. C. Martin, of the National Paper and Type Company presided at the monthly dinner of the Foreign Credit Round Table of the National Association of Credit Men, held November 22, in the Builders' Exchange. His declaration that credit is the biggest word in the world today sounded the keynote of the speeches of the evening.

\* \* \*

The Amsca Trading Company, importers and exporters and manufacturers' representatives, 110-116 Nassau street, has been appointed selling agent for this country for the paper mills, Nordskog & Co., Ltd., Christiansia, Norway, and Holmen-Hellefos Paper Mills, Drammen, Norway, and as such is in a position to submit quotations for prompt or future deliveries.

\* \* \*

"Paper Problems - Complexity vs. Simplicity" is the title of a booklet just issued by Charles Drury Jacobs, of 237 Lafayette street, New York. While treating largely with the subject of watermarking it contains much of value on standardization, and also deals with the subject of paper from the buyer's standpoint. It is a valuable booklet and may be had for the asking.

\* \* \*

Texas Gulf Sulphur Company permanent engraved certificates for \$6,350,000 capital stock, on official notice of issuance in exchange for present outstanding certificates, have been admitted to the New York Stock Exchange list. Initial sales were at 33¾, compared with a closing price of 33½ on the New York Curb market on Wednesday, November 23, 1921.

\* \* \*

Among paper men visiting New York this week are James T. Mix, general manager of the Northwest Paper Company; L. C.

Anderson, treasurer of the Oglesby Paper Company, Middletown, Ohio; E. W. Backus, president of the Minnesota and Ontario Paper Company, International Falls, and F. C. Clark, director of the research and development division of the American Writing Paper Company, Holyoke, Mass.

### W. G. McNaughton New Secretary of T. A. P. P. I.

An old-time member of the Technical Association, in the person of W. G. McNaughton, has been selected by the committee in charge as secretary of the Technical Association of the Paper and Pulp Industry, and reached New York this week to take over the duties of the office, succeeding Thomas J. Keenan, who resigned to resume the editorship of *Paper*.

In making this selection, the association has gone into the ranks of its own membership to secure a man who is not only



W. G. McNAUGHTON

of high scientific attainments, but whose work with technical branches of the paper industry has been noteworthy.

Mr. McNaughton graduated from McGill University, Montreal, in 1904, and was in chemical work with the Canadian Rubber Company until 1908, when he went with the Nekoosa-Edwards Company to organize its laboratory work. He remained there until 1917, becoming superintendent of manufacture, leaving Nekoosa to reorganize the operation of the Inland Paper Company at Spokane, which was a complete plant making sulphite, groundwood and various grades of paper.

On August 1, 1920, he went with the Kimberly-Clark Company, which was building a 120-ton sulphite mill to be followed by groundwood and paper mills, at Kapuskasing, Ont.

Mr. McNaughton is beginning his new duties at once, with his office in the rooms of the American Paper and Pulp Association, 18 East 41st street, New York.

### Martin Paper Products Co. Formed

[FROM OUR REGULAR CORRESPONDENT.]

MENASHA, Wis., November 30, 1921 — Another paper specialty manufacturing concern, known as the Martin Paper Products Company, has been organized at Menasha.

It is capitalized at \$50,000, and has started operations on North Commercial street, Menasha. The incorporators are John A. Martins, Chester E. Davis and Walter Hamm.

GROUND WOOD  
CHEMICAL PULPS

PERKINS-GOODWIN CO.  
NEW YORK

PAPER

Mills at  
Mocanaqua, Penn.



Shickshinny, Penn.

CREPE  
**ABSORBO**  
NAPKINS

Soft—pure white—perfectly absorbent  
—heavily creped.

We sell the jobbing trade only.  
Place your order today for some.

**M. M. ELISH & CO., Inc.**  
29 Beekman St. New York City

**WRITE ELISH ABOUT NAPKINS**

WAXED PAPERS

WE ARE READY TO SERVE YOU



Manufacturers of

**WAXED PAPERS**

Sheet or Rolls

Plain or Printed

**Waxed Lunch Rolls**  
**Pulp and Corrugated Cake Circles**

Roll Printing—1 and 2 Colors  
Shooting and Rewinding.

ALL SIZES

**White Confectionery Bags, Glassine Bags**  
Plain or Printed

**DRAGON PAPER MFG. CO., INC.**  
484 Van Alst Ave., Long Island City, N. Y.

GLASSINE BAGS

WAXED PAPERS

WAXED PAPERS

# E d i t o r i a l

Vol. LXXIII New York, December 1, 1921 No. 22  
FIFTIETH YEAR

## Cotton Linters and Papermaking

Cotton linters have been produced for a good many years for numerous purposes, but not until recently have they been used in the paper industry. For a time it was feared that overproduction of linters would lead to a great waste of material, but this year under the shadow of a poor 7,000,000 bale cotton crop, and with more uses than ever for linters, this danger is eliminated and the supply is wholly inadequate.

In the year 1899 to 1900, 114,000 bales of linters were produced amounting to 12 per cent of the total cotton crop. This production increased steadily to the high water mark of 1,331,000 bales amounting to 10.9 per cent of the cotton crop in 1916 to 1917. In 1918, 1919 and 1920 the production decreased. Texas produces about 26 per cent of the entire production while Georgia follows with 20 per cent.

Cotton seed from the gin mill contains 10 per cent of cotton or 200 pounds of fiber per ton of seed. First cut linters are 15 to 30 pounds of this total leaving 170 to 185 pounds of cotton fiber for second cut linters and hull fibers. The removal of the second cut fibers which are used in paper making leaves some 25 pounds of fiber per ton of seed which is later separated with the fiber content of the seed known as hull fiber. The hull fibers are also used in paper making holding next place to second cut fibers in importance. These fibers are removed by attrition, or passing the seeds between high speed surface plates, by the well known process of beating, and by the clipping process with the use of revolving and stationary carborundum discs which work together like the old fashioned corn husker.

Up to the time of the World War linters were held as an unimportant byproduct of cotton. The commercial value varies with market fluctuations but not commonly in accord with changes in the cotton market. In 1912 to 1913 the average price for all grades was 26 cents a pound for oil mills. This decreased until in 1914 to 1915 the average price was about 15 cents. In 1915 to 1916 the average price rose to 5.9 cents and the quantity cut per ton was increased from 71 to 106 pounds. In 1916 to 1917 the high price level of 68 per cent of 149 pounds to a ton was attained. The following year there was a slight price reduction. On May 1, 1918, the Cotton and Cotton Linters Section of the War Industries Board ruled that thereafter all linters should be cut at 145 pounds and upward to the ton of seed for use in the manufacture of munitions. At the same time the price of 4.67 cents a pound was established. In December of that year the Ordnance Department reduced the cut from 145 to 75 pounds to a ton to avoid oversupply and wastage.

The government requirement for increased cuts necessitated new methods and closer study of the general situation. By practically polishing the lint from the seeds by bringing them in contact with rapidly revolving carborundum discs it was found that a maximum of 200 pounds of lint to the ton of seed could be acquired. As in

guineacotton manufacture so in paper manufacture it is the cellulose constituent of the fiber that is so essential. Linters are nothing more than the short cotton fibers and contain 91.35 per cent of cellulose as do the cotton (*Gossypium*) fibers.

At the close of the war the government supply of linters was thrown on the market. A bumper cotton crop was ushered in and linters sold at from 1.25 to 1.50 cents a pound in an active market. Paper men found that bleached linter pulp compared favorably with cotton rags known as thirds and blues, twos and blues, soiled street, and house whites, new cuttings, No. 1 old whites, and bleached and soda pulps, both in paper making qualities and in price.

This substitution has been hampered this year by the short cotton crop reduced further by the boll weevil to just one-half of last year's production. This unfortunate condition of things has caused the soaring of prices to that point where they do not compare favorably with rag and pulp prices. The demand this year is unquestionably larger because of the interest taken by the paper industry, and this fact combined with the short cotton crop and the corresponding shortage of linters has caused the price of No. 1 linters to soar out of sight, and the price of No. 2 to rise to from 3.00 to 3.25 cents a pound. These prices greatly restrict linters as a factor in paper making for the present.

However, now that linters have revealed their importance to the paper business it is not to be supposed that they will not again assume a position of relative importance. Under normal conditions the production is considerable and may be easily determined in relation to the cotton crop as follows. Every bale of cotton contains 4 tons of cotton seed. A ton of cotton seed contains 200 pounds of fiber. For this year's crop of 7,000,000 bales using the above data there is seen to be available 2,800,000 tons of seed which at 200 pounds to the ton amounts to 280,000 tons of cotton seed fiber. This will produce 140,000 tons of first cut linters, 280,000 tons of second cut linters, or 220,000 tons of cotton hull fiber. With a normal cotton crop of around 11,000,000 bales the tonnage of second cut linters, 440,000, is an item that can easily influence paper making although it is but a small fraction of the whole tonnage of raw material used.

## Paper Mill Wages

The Bureau of Labor Statistics, Department of Labor, has issued comparative figures giving the employment and wages paid in the paper industry during the months of October, 1920, and October, 1921. Reports have been received from 58 paper mills showing their employment in October, 1920, to have been 34,367 persons, dropping off to 24,499 in October, 1921, a decrease of 28.7 per cent. The wages paid in these 58 paper mills amounted to \$1,055,025 in October, 1920, dropping off to \$585,721 in the same month of 1921, a decrease of 44.5 per cent.

The bureau also gives figures showing a comparison between the employment and wages paid in September and October of this year. In September there were 22,596 persons employed in 58 paper mills as compared with 23,068 in October, an increase of 2.1 per cent. The wages paid in these 58 paper mills mounted to \$538,681 in September, increasing to \$558,488 in October, an increase of 3.7 per cent.

Regarding change in wage rates and per capita earnings dur-

ing the period of September 15 to October 15, in the paper industry:—the bureau says "Decreases ranging from 8 to 20 per cent were made to all employees in one mill, while in another mill the entire force was reduced 15 per cent. In three plants, a decrease of 12½ per cent was made to all men. In a fourth plant 60 per cent of the men were decreased 12 per cent in wages. Four establishments reported a wage rate decrease of approximately 10 per cent, which affected the entire force in three establishments and 5 per cent of the force in the fourth establishment. One concern made a \$40 flat cut for men and a \$25 cut for women. An increase of 1.6 per cent is shown for per capita earnings when September and October figures are compared."

### Mr. Barney Suggests New Bank

Nineteen hundred and twenty-one has been a lean year, and we all know it. We have it in our power to make 1922 a fat year.

To do so we must have a "good fill" for our mills, as "profit or loss depends on the last ten per cent." A good fill can't be had unless we get back our export trade. It is not just exports in paper (though that is important), but the domestic buying power which depends on the export of other things.

The government figures for October show a decrease of \$132,000,000 in exported agricultural products, and of \$273,000,000 in other exports, that means that the domestic buying power has suffered in one month to the tune of \$405,000,000 as compared with a year ago.

To get back that domestic buying power we must sell at prices which people abroad can pay. Those prices are not necessarily even as low, in cents, as our present prices, but they must be lower as measured in foreign currency. An extreme case is presented by German marks. Say an American price is \$100 a ton, packed, f. o. b. ship, New York Harbor. The German would have to pay 27,200 marks, packed f. o. b. the same place. He couldn't buy at that price at all. But if the mark could be stabilized at 735 he would only have to pay 13,600 marks. The point at which sales could be made in great volume might be 15,000 marks. That would give the American mill a chance to get \$11 instead of \$10.

To enable the foreigner to buy American goods, and to prevent the scandalous undercutting of American prices through exchange differences, it is necessary to stabilize exchange. We must squeeze a lot of water out of foreign currency, and we must prevent the violent fluctuations which are now often more disastrous than the rates themselves.

Everybody agrees on this, Washington, Wall Street, and the farmer whose wheat is worth a fraction of its cost, because a hungry Europe can't afford to buy. Various cures have been proposed.

The American Bankers' Association tried to start an Edge Law Bank, but the public failed to respond with the \$100,000,000 needed. The eminent banker, Frank A. Vanderlip, has proposed a system of Gold Reserve Banks in Europe, to be temporarily financed by American capital. But it seems doubtful that the capital can be got together.

A proposition that has aroused great interest here and abroad, is that of Hiram Barney, a director of Parsons Trading Company, New York. The novel points in this plan are that it shows where the necessary capital of \$2,400,000,000 can be had, and by making the proposed bank permanently American, it avoids those international differences which might cause such serious friction under the Vanderlip plan.

As Mr. Barney's plan does seem so practical, it is receiving the earnest and sympathetic attention of various bodies of exporters,

importers and bankers, and has been given no little space by *The New York World* in its issues of November 6 and 17.

The plan is for a bank, along the general lines of the Federal Reserve Bank, which would be the only authorized channel for clearing international acceptances, and all transfers of money, credit and bullion between this country's inhabitants and persons or concerns abroad. The banks would continue to be the dealers in such things, but they would have to conform to the Exchange Bank's rates, and they would get a commission. Speculation in exchange would be cut out, because no paper would be eligible unless based on genuine commercial transactions. The bill of lading would be the corner stone. This would eliminate international check-kiting, which is today one of the strongest and most dangerous influences.

The bank would be the government's fiscal agent in all matters relating to foreign trade and exchange, and as to the Allies' debt to the United States.

Its capital would be say \$800,000,000, gold—there is more than that lying idle in the treasury and \$1,600,000 in other money, foreign government bonds and Allies' debts, this last taken at about 35 per cent. The United States Government would own one half the capital and the rest would be in the hands of banks, manufacturers, exporters and importers.

The bank's currency would be issued on practically the same basis as the Federal Reserve's currency, but would be issued exclusively for export and import transactions and would automatically retire from circulation with the completion of the transactions which it covers, ordinarily within three months.

We can count on co-operation abroad, as it is distinctly to Europe's interest to know from day to day and month to month what they will have to pay to meet their dollar indebtedness. If any group or clique tried to interfere, the bank would be powerful enough to withstand all assaults. It would have the greatest gold stock in the world, it would be a large holder of European and other government bonds, it would be the only channel into or out from America for the financial arrangements of export and import and international loans. Its resources and facilities could powerfully affect exchange between other countries. We can certainly count on co-operation abroad. Can we and Congress co-operate to get such a bank? It is workable, it gives good promise of curing the present intolerable conditions. It is needed.

Its prompt organization would bring a more solid prosperity than we have known for a long time.

### Predicts Bright Future for Labrador

Dr. W. T. Grenfell, who for the past thirty years has been a medical missionary on the coast of Labrador, in an address before the Empire Club in Toronto, spoke of the great pulp and paper making possibilities of that country which, he declared, was rich in pulpwood and he believed that many pulp and paper mills would be established on the shores of the St. Lawrence from Quebec to the Gulf and as flourishing towns would be built up within a few years as Iroquois Falls, Smooth Rock Falls and other paper centres in Northern Ontario. Conditions were in every way favorable.

### Nashville Paper Co. Chartered

[FROM OUR REGULAR CORRESPONDENT.]

NASHVILLE, Tenn., November 28, 1921.—The Nashville Pulp and Paper Company, chartered under the laws of Delaware, has filed a copy of its charter with Secretary of State Ernest N. Haston. The company pays on a capitalization of \$1,200,000. The three incorporators, whose names appear on the charter, are T. L. Cratkau, M. A. Bruce and C. H. Maxwell, all residents of Wilmington, Del. The objects of the company are to deal in wood pulp and manufacture paper, etc.

# SELECTING STEAM BOILERS AND WATER SOFTENERS FOR PAPER MILL POWER PLANTS

WRITTEN SPECIALLY FOR THE PAPER TRADE JOURNAL BY W. F. SCHAPHORST.

(COPYRIGHT 1921 BY W. F. SCHAPHORST.)

*The following article is the third in a series of articles to be printed in the PAPER TRADE JOURNAL on the subject of Power Plant Machinery for Paper Mills. In this series of articles it will be the aim of the author to go through the entire power plant of the paper mill and give the non-technical official a pretty good idea of what he should have in his mill. As it is, owners and officials who are responsible for the buying frequently know very little about the different types of power plant machinery on the market.*

One hundred years ago the steam boiler in general use was a plain cylindrical shell containing a large mass of water. It operated through "sheer strength and awkwardness" as the saying goes. Later, two large flues of fire tubes were built into the shell, improving conditions slightly. With the development of the steam engine came the demand for better boilers. More fire tubes, then known as flues, of smaller size, were put into the boiler. This caused the boiler to steam better, to operate more efficiently, and it was reduced considerably in bulk.

Further improvements and increased use of the steam engine created a demand for more boilers and the fire tube boiler was the one that answered the call. It was plain, rugged in construction, could be built readily with the tools then in use and could be purchased and maintained at a low price.

That was fifty years ago. Shop prestige being desirable and advantageous to the manufacturers of this successful boiler, further improvements were made, but they were improvements in shop

complicated in construction and was more costly to purchase and maintain. Regardless of this, numerous installations were made because it was found to be more efficient than the fire tube boiler.

Today, the water tube type of boiler is used exclusively in large power plants and is supplanting the fire tube boiler even in the smaller plants. However, improvements in fire tube boilers have recently been made, most notable among which probably is the

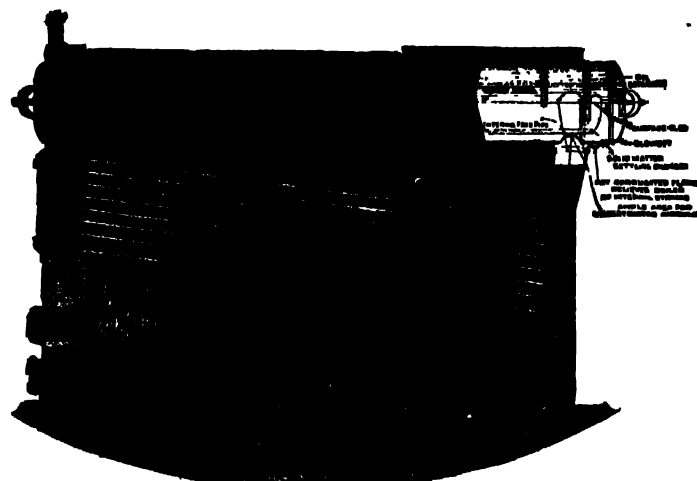


FIG. 2 WATER TUBE BOILER WITH VERTICAL BAFFLES (COURTESY UNION IRON WORKS, FRID., PA.)

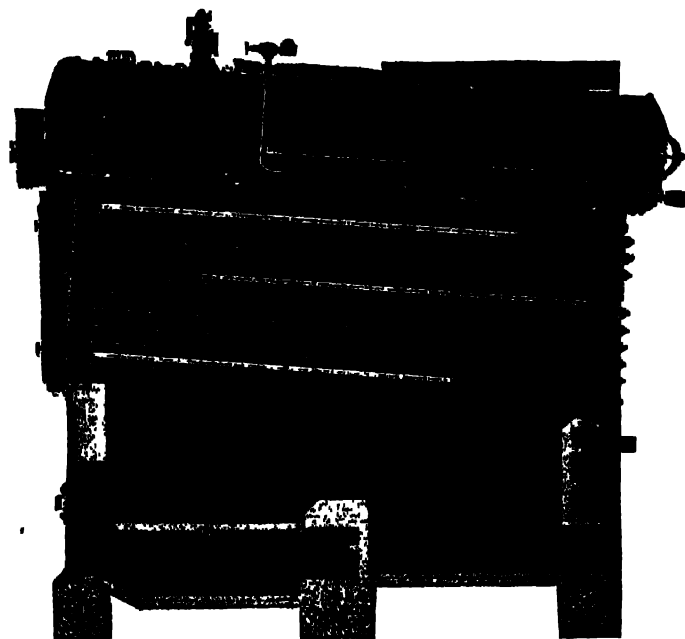


FIG. 1—TYPICAL WATER TUBE OF BOILER, HAND FIRED, WITH HORIZONTAL BAFFLES (COURTESY HEINE SAFETY BOILER CO., ST. LOUIS)

efficiency or shop methods only. They continued to build the boiler of their forefathers.

Later improvements in prime movers and industry in general demanded more efficient boilers. This opened the way for the water tube boiler which had been in a stage of development for many years but had not met with general approval. It was more

work done by Howard J. Webster, engineer, who has developed a type of fire tube boiler with an improved method of water circulation designed to increase the efficiency of the boiler. A number of boilers of his design are already in use in paper mills. Thus in writing about this type of boiler one president of a paper manufacturing company says:

"The boiler is operating very satisfactorily, operating 24 hours per day with such good combustion that we have no smoke trouble; in fact we have been able to cut out one of our six boilers after we had started the new boiler, and at less consumption of coal. Another very satisfactory feature is that we have been able to place the new 200 h. p. boiler in the same space that was formerly occupied by one developing 100 horse power."

It would be difficult to give the exact reason why more attention is usually given to the selection of steam turbines and steam engines for paper mill power plants than to the selection of steam boilers. Perhaps it is because the prime mover is more "showy"—more "spectacular." The boiler is left to shift for itself in the background. The idea seems to prevail that one boiler is about as good as another, that "a boiler is just a boiler," and the selection is too often made on a mere price basis. The price basis method is all wrong, usually, unless the boiler is to be used in a place where fuel doesn't cost anything and even then care should be taken to select a boiler that will not blow up at the end of the first year. Even in the Pacific northwest where wood waste is enormous, where water power is cheap, where the wood waste used to be burned out in the open just to get rid of it, or where incinerators were built at considerable expense to destroy the waste—even in these places expensive boilers are now being purchased and installed to "burn the waste economically." Such is the march of

(Continued on page 42.)



## Ten Reasons Why Engineers Buy Foxboro Instruments

1. Foxboro instruments are guaranteed to be accurate.
2. Foxboro instruments are durable. They stand up under the most rigorous conditions 24 hours a day, 365 days a year, and year after year.
3. Foxboro charts are legible. Can be read easily, and are a permanent record of operation.
4. Foxboro instruments are simple in design and positive in action. There are no knock-knacks nor superfluous gewgaws.
5. Each instrument is adapted to the standard round dust-, time-, moisture-tight case. Can be installed anywhere and takes up a minimum amount of space.
6. Foxboro instruments are designed to fit specific applications.
7. Only the best quality of materials is used.
8. Artisans build Foxboro instruments.
9. Each instrument passes through a series of exhaustive tests to determine its accuracy and durability before it is sent from the factory.
10. The price of these quality instruments is not high.

Let us send you our valuable catalog, "Foxboro Instruments in the Power Plants." It will interest you.

### THE FOXBORO CO., Inc.

Foxboro, Mass., U. S. A.

New York Chicago Tulsa San Francisco Pittsburgh  
Philadelphia Birmingham

# FOXBORO

TRADE MARK

118 91

### LION PAW BELTING



## Leaves Stretch Behind—

There are two kinds of belt stretch

—the Lion Paw kind, which is less than half that of leather and practically ceases after the first few days of operation, and —the perpetual slow stretch of most belts which *never* ceases till the belt is scrapped.

You don't have to stop your machines for belt stretch once a Lion Paw belt is tuned to service. This lessens overhead.

May we send you our booklet

"Cutting the Unreckoned Costs"

### LION PAW BELTING

Mfg. by Buckner Process Co., Inc.

R.D. Skinner & Co. Inc.

70 East 45th St., New York, N. Y.  
70 State St. Boston, Mass.

## SELECTING STEAM BOILERS AND WATER SOFTENERS

(Continued from page 40)

progress. If that is the case in lumber mills, in woodworking plants, surely it is worth the while of the paper mill to look into the boiler efficiency problem carefully.

It is well to remember that all of the good, expensive fuel is consumed in the boiler room, beneath the boilers. The cost of fuel is usually the principal cost of power production. Roughly the cost of generating steam in the typical paper mill power plant varies from 65 to 80 per cent of the total power production cost.

The prime movers have also been getting more attention from inventors and designers than have the boilers. Most of the improvements and changes in the last 20 years have been made in prime movers, the boilers remaining practically the same aside from size. Equal, or even greater, consideration should be given to the selection of the steam boiler, however, because the boiler is often responsible for the greatest waste.

The boiler, for example, is subject to greater difference in efficiency during its life. When new and when first tested it usually performs very well because it is clean and because it is carefully fired and watched. After a time, however, the inside becomes cov-

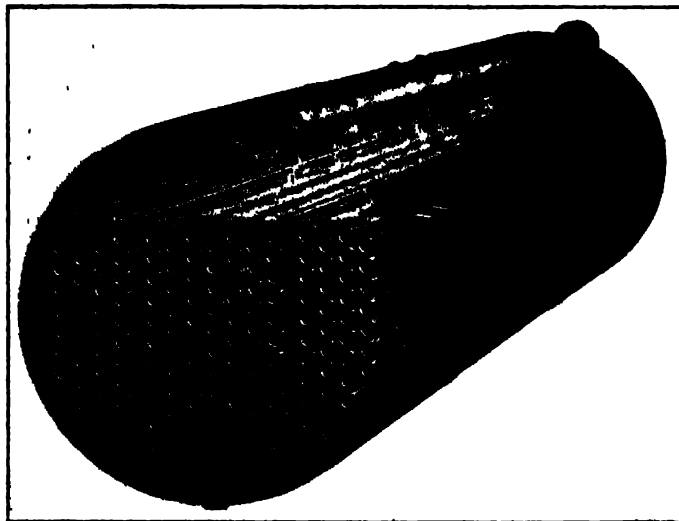


FIG. 3—IMPROVED TYPE OF FIRE TUBE BOILER NOW COMING INTO USE IN PAPER MILLS. (COURTESY LEBANON BOILER WORKS, PHILADELPHIA)

ered with scale and the outside with soot, the fireman becomes careless and does not regulate his air properly, air is permitted to leak through cracks in the boiler setting, fuel is improperly fired, and the net result is a decided reduction in efficiency. This reduction is regarded by many as a perfectly natural result of age and it is permitted to continue. As a matter of fact, however, there is no reason why boiler surfaces, both inside and out, cannot be kept clean throughout the entire life of the boiler, and why the efficiency cannot be maintained as high 10 years after installation as it is on the first day of installation.

In most paper mills the officials, to be sure, demand a strict accounting of all money spent in the various departments. For example, if a thousand dollars is appropriated for installing plumbing equipment or for laying a sidewalk around the mill, every dollar spent must be accounted for. But in the power plant a thousand dollars is appropriated for fuel and nothing is said after it is burned. It is simply charged to "fuel." Another thousand dollars is appropriated for more coal, it is burned, and so forth. Much money could be saved if more attention were given to boiler

efficiencies—to the useful work that is gotten out of steam. What percentage of the heat value of the fuel goes into the steam? What percentage of the hot cinder gases is recovered and returned to the boiler? What percentage of the heat in the exhaust steam is recovered and returned in the form of feed water? What percentage is unnecessarily wasted in the ash pit? etc. These are all worth-while questions to ask one's self.

Among the causes of low boiler efficiency we have the following that are possibly not so important as soot and scale, but they are nevertheless important:

- 1—Too much air is supplied to the burning fuel
- 2—Insufficient air is supplied.
- 3—Not enough combustion space above the fuel bed
- 4—Boiler settings are allowed to become leaky
- 5—The best coal for fuel for the given conditions is not used
- 6—Improper grates are used
- 7—Fuel is fired haphazardly, unsystematically.

In selecting a boiler for any purpose whatever the most important requirement of all is to select one that is safe. In general, the water tube boiler is safer than the fire tube boiler, because of the fact that the former does not store so much water. The late Dr. Robert H. Thurston, dean of Sibley College, Cornell University, figured that in a plain cylindrical boiler under 100 lbs. steam pressure enough energy is stored to throw the boiler to a height of over three and one-half miles in the case of an explosion. This is because hot water contains so much energy and because there is so much water in cylindrical boilers. He said, "A cubic foot of heated water under a pressure of from 60 to 70 pounds per square inch has about the same energy as one pound of gun powder." This is one of the reasons why the water tube boiler is given preference to the fire tube boiler.

The weight of the boiler is also important. Fire tube boilers are generally large in diameter. The greater the diameter the greater must be the thickness of the metal to withstand the given pressure and consequently the greater the weight of steel necessary and the greater the cost. The water tube boiler again has the advantage in that the drums of water tube boilers seldom exceed 48 inches in diameter, hence the plate thickness need never be excessive.

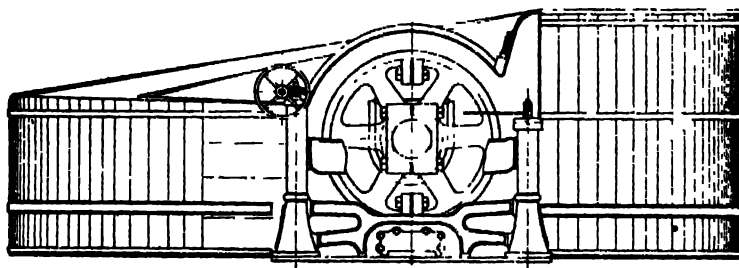
The tubes of the water tube boiler always come in contact with the most intense heat. However, since these tubes are comparatively small in diameter and of great strength they have a high factor of safety, much higher than the usual factor of safety of a fire tube boiler, the thick shell of which is exposed to the most intense heat.

Also, in the water tube type of boiler there are no compressive stresses whatever. Pressures always act from within both in the drums and in the tubes, consequently all metal is in tension. In the fire tube boiler the tubes are in compression and are always liable to collapse, especially when they become thin or when they are made in large diameters.

While it is true that water tube boilers sometimes explode, such explosions are almost invariably less dangerous than fire tube boiler explosions. Water tube boiler explosions seldom occur due to weak drums because the drums are well protected from the most intense heat. If there is any breaking or bursting at all it is usually a tube, and tube failures are seldom serious—merely an escape of steam accompanied by more or less noise—and that is about all. Dr. Thurston said, "The stored available energy is usually less than that of any of the other stationary boilers and not very far from the amount stored pound for pound, in the plain tubular boiler. It is evident that their admitted safety from

(Continued on page 44)

A manufacturer of book paper who recently installed two Niagara Beaters writes: "Due to the number of old style beaters that your two Niagaras replaced, we have been able to divert nine men from our beater room to other places in the mill. We have thereby effected a saving in this department of twelve thousand dollars a year."



*Ask the Mill That Owns One*

**Valley Iron Works Co.**

**Appleton  
Wis.**

## SELECTING STEAM BOILERS AND WATER SOFTENERS

(Continued from page 42)

destructive explosion does not come from this relation, however, but from the division of the contents into small portions and especially from those details of construction which make it tolerably certain that any rupture shall be local. A violent explosion can only come from the general disruption of a boiler and the liberation at once of large masses of steam and water."

Next in importance to safety comes economy of performance. A great many different designs of boilers have been built and many of them have proved successful. There are many makes of boilers on the market today, most of which can be called successful. Some of them are water tube and some of them fire tube boilers. As far as economy of operation is concerned there seems to be no line of demarcation as one type of boiler generates as many pounds of steam per pound of coal as the other, provided conditions are right as to cleanliness, amount of fuel burned per square foot of grate area, amount of air used per pound of fuel, tightness of boiler settings, etc. It is true that the water tube boiler is usually regarded as the more efficient of the two general types, as it has many good records to its credit. However, this excellent performance is probably due to the largeness of the boiler used in the test rather than to the particular design. Large units are usually more efficient than small units. This is true not only of boilers but of most power generating apparatus.

Greater rates of evaporation are possible from water tube boilers than from fire tube boilers, consequently it is easier to force the water tube type.

Water tube boilers can be put into operation more quickly than can fire tube boilers because the water tube type contains less water. The water tube boiler of today is approaching the "flash"

type of boiler, such as is used in steam automobile service. The latter boiler, as is well known, contains very little water and can therefore be made to steam very quickly.

All parts of a boiler should be easily accessible so that they can be cleaned, inspected, and repaired without great cost. Water tube boilers, again, have the advantage in that they are usually more easily cleaned, both of scale and of soot, and are more easily inspected, and can be more easily repaired.

The water tube boiler requires less floor space than horizontal tubular boilers. According to information published by one of the foremost manufacturers of water tube boilers an average 100 h. p. horizontal tubular boiler requires 40 per cent more floor space than an equal capacity water tube boiler, and a 300 h. p. horizontal tubular boiler requires nearly 50 per cent more floor space than an equal capacity water tube boiler.

The water tube boiler also lends itself more readily to theoretical design than does the fire tube type. In the fire tube boiler we have a fixed cross-sectional flue area from one end of the boiler to the other. Theoretically this area should gradually decrease with the reduction in volume of the flue gases as these gases become cooler in imparting heat to the boiler while flowing through the boiler passes. In the fire tube boiler this cannot be done without excessive cost. In the water tube boiler, however, this reduction in volume of gases is easily cared for by a simple adjustment of the baffles.

Summing up we have these principal advantages of the water tube type.

1. Lightness.

(Continued on page 46)

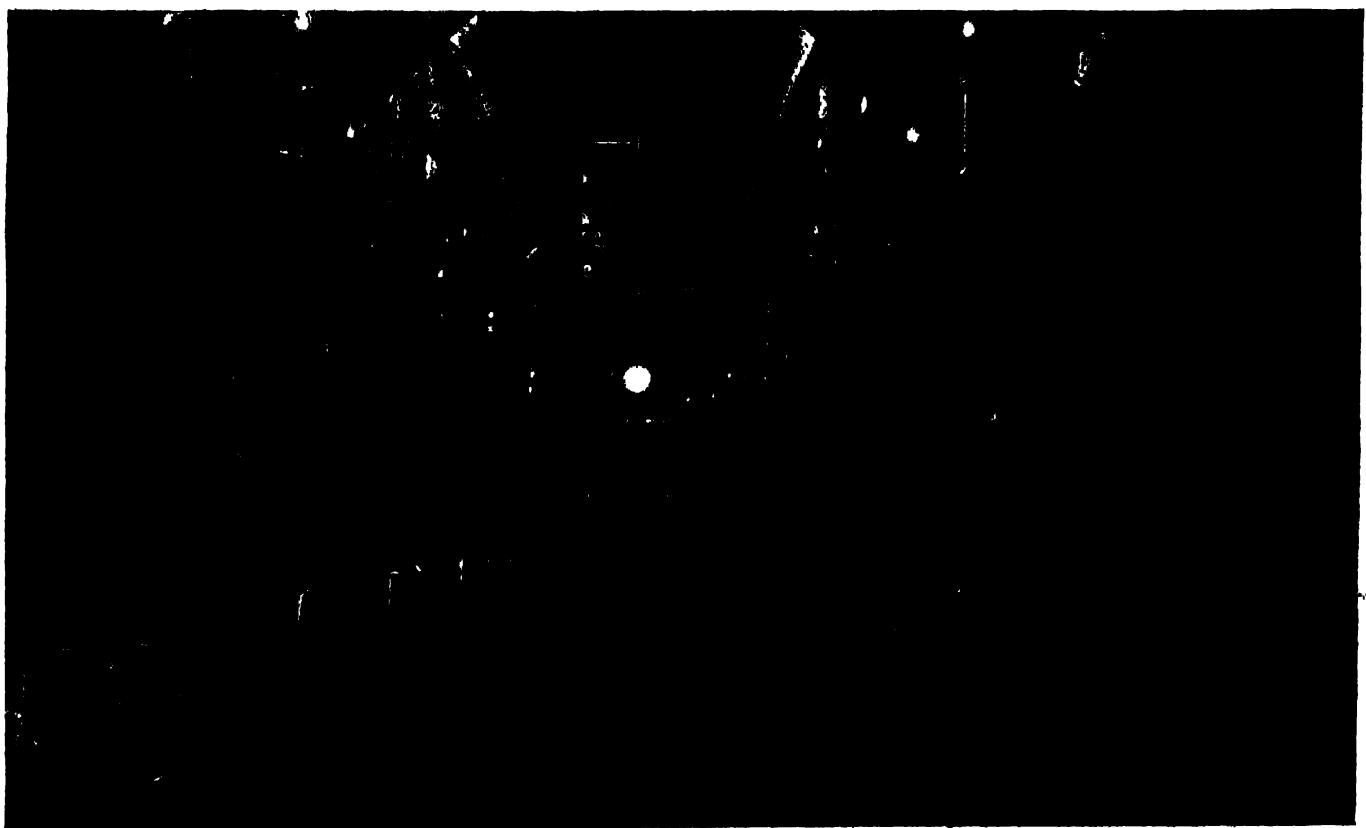


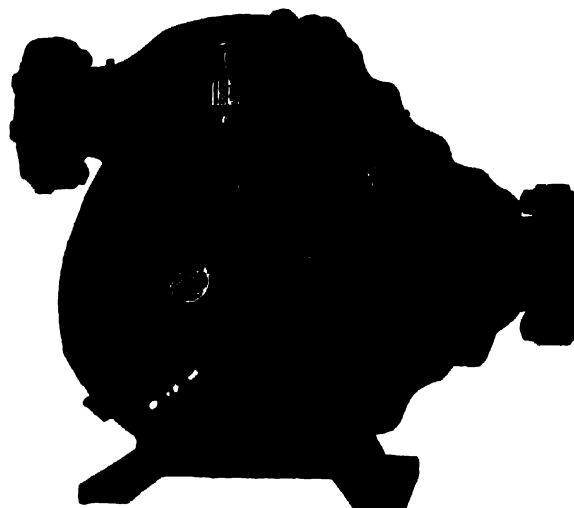
FIG. 4--VIEW IN BOILER ROOM OF CHAMPION FIBRE COMPANY, OF CANTON, N. C., SHOWING A PART OF THE TWENTY-FOUR 316 H. P. WATER TUBE BOILERS INSTALLED. (COURTESY HEINE SAFETY BOILER CO., ST. LOUIS.)

# THE HYTOR VACUUM PUMP FOR FLAT BOX SERVICE

Vacuum  
Produced  
Absolutely  
Without  
Pulsation

—  
No Vibration

—  
Saves Wires



Only One  
Moving Part

—  
No Rods, Pistons,  
Crank Shafts,  
Loose Moving Parts,  
and No Gears

—  
No Expert Attendance

*Western Representative*  
**T. H. SAVERY, Jr.**  
1718 Republic Bldg.,  
Chicago, Ill.

**THE NASH ENGINEERING CO.**  
WILSON POINT ROAD  
SOUTH NORWALK, CONN.

*New England Representative*  
**G. H. GLEASON**  
141 Milk St.  
Boston, Mass.

# "AMERICAN"

PAPER MAKERS TWINE

WALL PAPER TWINE

FINE AND COARSE POLISHED TWINES

"AMERICAN" BRAND MANILA ROPE

"AMERICAN" BRAND TRANSMISSION ROPE

The name "AMERICAN" as applied to cordage means "more value in every way." Send for copy of our General Catalogue, Prices and samples. Address Department M.

*Largest Makers of Commercial Twines and Rope in the World*

**AMERICAN MANUFACTURING CO.**

NOBLE AND WEST STREETS, BROOKLYN, NEW YORK CITY

TUBE ROPE

HAY ROPE

# CORDAGE

## SELECTING STEAM BOILERS AND WATER SOFTENERS

(Continued from page 44)

2. Strength Greater safety
3. Compactness Less floor space is required.
4. Adaptability for use with forced draft.
5. Rapidity with which steam can be raised from cold water.
6. Higher rate of evaporation
7. Accessibility for cleaning, repairing, etc
8. Adaptability to theoretically correct baffling

But, on the other hand, we must likewise weigh the disadvantages of the water tube type, and you may be sure that it has some, among which are the following:

1. It is not so easy to obtain proper circulation of water through the tubes. Sometimes tubes burn out because of poor circulation. It is claimed by some manufacturers of fire tube boilers that the water tube boiler is so efficient because of the "better" circulation of the water tube boiler, but this is not correct. Circulation is one of the principal problems of the water tube boiler

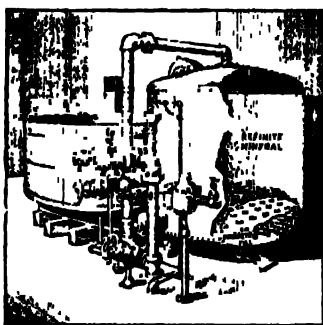


FIG. 5--SHOWING ARRANGEMENT OF TYPICAL ZEOLITE "EXCHANGE SYSTEM" OF BOILER FEED SOFTENER (COURTESY REFINITE COMPANY, OMAHA, NEB.)

manufacturer. It has been solved by one of them by providing a large "throat area" as shown in one of the illustrations herewith.

2. It is more difficult to separate the steam from the water without carrying moisture along.
3. There is less steam disengaging surface
4. There are many more joints to give trouble by leaking than in fire tube boilers
5. A great many hand holes are needed for cleaning the tubes, thus increasing the number of joints still more.
6. Fluctuations in pressure occur more easily than in the fire tube boiler. Drums should be large enough to insure ample water supply. If they are too small the water supply may become exhausted quickly and the water level will drop below the upper tubes. There is danger involved in permitting the water level to go too low.

It is the practice of some boiler manufacturers to baffle the boiler tubes either way--vertically or horizontally, depending upon the kind of coal used. For Eastern coal the boilers are baffled vertically so that the gases will pass across the tubes. For other grades of fuel, or to meet special furnace conditions the boilers are baffled horizontally, directing the gases toward the rear of the boilers, then forward through the bank of tubes, then again to the rear of the boiler to the smoke outlet. Sometimes to meet special conditions, boilers are baffled with a combination of vertical and horizontal baffles.

When selecting a boiler for the paper mill power plant it might be well to bear in mind that according to investigations by the

U. S. Bureau of Mines, gas passages in steam boilers should be long, with a small cross-section. Such boilers are more efficient than those having large cross-sections and short passages. Also there should be as little free area as possible between tubes. By reducing this area the hot gases are forced into more intimate contact with the tubes than where the spaces are made ample.

For smokeless combustion horizontal baffles are preferable. If vertically baffled boilers are to be used without developing smoke the boiler settings should be very high. In cities having stringent smoke laws ordinary vertically baffled boilers are not allowed, especially with bituminous coal and hand firing.

The horizontally baffled boiler is also preferable from the draft loss viewpoint. Less chimney draft is required to draw the gases through than with vertically baffled boilers. Tests were made by Henry Kreisinger and M. T. Ray proving the horizontally baffled boiler to be superior to the vertically baffled boiler from the draft viewpoint.

As for chimney temperatures (low chimney temperatures, remember, are always most desirable), vertical baffles are less efficient because with them when operating at full load a temperature of 550 deg. F. was obtained, whereas with horizontal baffles the temperature was only 470. When operating 50 per cent overload the temperatures were 660 deg. F. and 570 deg. F. respectively for vertically and horizontally baffled boilers. In these tests by Kreisinger and Ray vertical baffling was first used and efficiencies of 61.3 and 60.9 per cent were obtained with Pocahontas and Clinchfield coals respectively. Using horizontal baffling equipped with two horizontal passes the efficiency was raised to 63.6 and 67.2 per cent with Pocahontas and Clinchfield coals respectively. With three horizontal passes the efficiency was still further increased to 67.7 and 69.9 per cent using Pocahontas and Clinchfield coals respectively. Horizontally baffled boilers are superior for high volatile coal.

It is not so difficult to keep horizontal baffles tight against leakage as vertical baffles. Horizontal baffles are much more easily installed and kept tight. Tightness is essential.

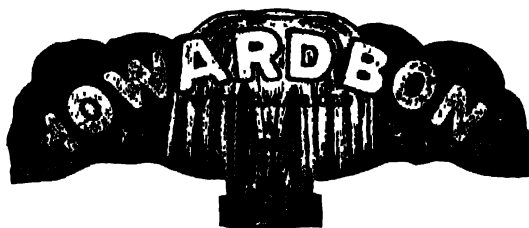
### Radiant Heat

In selecting a steam boiler and in the design of the settings it is also well to remember that radiant heat is a valuable item. The furnace walls and all exposed boiler surfaces receive radiant energy from the glowing fuel bed. The fire brick furnace walls are poor conductors of heat and therefore they become incandescent. This incandescence is of value to the boiler because of the re-radiation of heat that takes place from it. Boiler surfaces that completely envelop the furnace as in the locomotive type of boiler are preferable from the radiant heat viewpoint, but their expense eliminates them from stationary power plants. Boiler surfaces should always be so placed that the maximum surface is exposed to the glowing fuel bed. Examples are cited where fire brick arches have been built over the fires to "improve" the furnace, but the results were disappointing. Lower efficiencies were obtained in place of higher. As soon as these arches were removed exposing as much of the boiler surface as possible to the glowing fuel bed the higher efficiencies were again restored.

In order that there will be no interference in the absorption of this radiant heat it is important that the boiler surfaces be absolutely clean and free from ash and soot. It is also important that the highest possible fuel bed temperature be maintained because radiant energy transmitted varies not directly with the temperature but as the Fourth Power of the absolute temperature. That is, it varies as the fourth power of the absolute temperature of the fuel bed minus the fourth power of the absolute temperature of the

(Continued on page 48.)

Howard Bond



Howard Ledger

**"The Paper of Many Uses"***Manufactured by***THE HOWARD PAPER COMPANY,****Urbana, Ohio****FORGE LAP-WELDED**

**VERTICAL  
SEAMS  
HEATED WITH  
FURNACES  
AND WELDED  
WITH  
HYDRAULIC  
POWER**

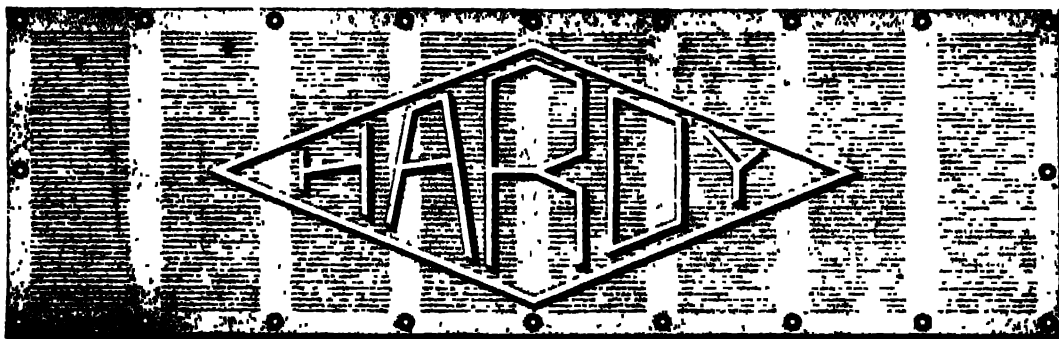
**SOFT STEEL****DIGESTERS****ALL SEAMS LAP-WELDED****AMERICAN WELDING COMPANY****CARBONDALE, PA.**

**CIRCUMFEREN-  
TIAL SEAMS  
HEATED WITH  
FURNACES  
AND HAMMER  
WELDED**

**Felt Test—Lowest Cost per Ton**

If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts, for ORR felts will produce the lowest cost per ton. They "stand up" under severe usage. Orr durability is acknowledged everywhere. Their strength and long life are as dependable as their reliability and quality.

In the 32 grades of Felts and Jackets we can match your most exacting demands. Tell us the kind of paper you desire to make, and we will send you samples of felts that will economically serve you and help you to produce paper at lowest cost per ton.

**THE ORR FELT & BLANKET COMPANY, Piqua, Ohio****WILLIAM A. HARDY & SONS COMPANY, Fitchburg, Mass., U.S.A.**

## SELECTING STEAM BOILERS AND WATER SOFTENERS

(Continued from page 46)

boiler surface. The fuel bed, too, should be clean as well as hot as any ash or clinker would intercept the radiant rays between the bed and the boiler surface.

The problem of best boiler operation in the average paper mill power plant is not as simple a matter as it may seem on the surface. For example, the question almost invariably arises: Shall we operate our boilers at their rated capacity, or shall we overload them? It is possible to greatly overload boilers. Some central stations make it a practice to operate boilers at 150 to 200 per cent of their rating. In other words, a boiler rated at 100 h. p. is compelled to develop 150 or even 200 h. p. Although this is done with the sacrifice of maximum efficiency, it is often more economical because the first cost of the installation is virtually cut in half, especially if the power plant load is a variable load. If the load is constant it is usually more economical to operate at normal load or at a slight overload. Much depends upon the size of the plant and the nature of the load, consequently it is practically impossible to write out a definite statement as to the most economical load for a new paper mill plant or even for an old plant. Each plant must be given its own individual consideration. The load curve of the plant must be carefully studied in determining the most economical boiler load combination.

In view of the above it is therefore clear that the overload capacity of a boiler is an important item. Where the load is very irregular, as is often the case in paper mill power plants, the water tube boiler, which can be made to handle sudden overloads quickly, is ordinarily preferable. It is more economical, in most installations, for example, to have a single boiler handle loads varying from 100 per cent to 200 per cent than to have two boilers, one of them operating constantly at 100 per cent and the other boiler operating from zero load to 100 per cent. A boiler operating at zero load, or nearly zero, is indeed a wasteful device, especially if coal is used for fuel.

The skill and intelligence of the engineer and his men naturally have much to do with the maintenance of continuously high efficiency. High grade engineers and firemen usually command more pay than inferior men, but in paper mill power plants which are usually large and where considerable fuel is usually burned every year, it pays to employ only high grade men. The larger plants can of course afford to pay more than the smaller plants, because of the greater amount of fuel consumed and the greater annual saving due to the more intelligent operation. However, poorly paid supervision and labor in the paper mill power plant is generally expensive.

It is impossible to make hard and fast recommendations regarding the sizes and number of boilers that should be installed in any given paper mill power plant. The usual practice is to install boilers in as large units as possible, at the same time giving due consideration to load fluctuations and the number of spare units that will be necessary or that should be provided.

In deciding upon the size of boiler necessary, the steam consumption of the prime movers must be known. This is best obtained from the manufacturers of the prime mover that has been selected. To the steam consumption of the prime movers must be added the steam consumption of the auxiliaries which usually varies from 15 to 20 per cent of the steam consumption of the prime movers.

After knowing the total steam consumption, the number and size of boiler units can be decided. If the load is absolutely constant, or if the load is fluctuating, it is evident that the number and size of units is of much moment. Then it should be remembered that there must be at least one spare unit, so that

other units can be cleaned without shutting down or interfering with the operation of the plant. For very large plants two spare units are the rule, while for the smaller paper mill plants one spare boiler will usually suffice.

If the plant is large, it is usually best to install large units as already stated, because large units are most efficient. The greater the size of the unit the less the first cost, the less the labor cost, the less the first cost of brick work, the cost of piping, etc., per boiler horse power. If feed water is bad, though, large units are not advisable.

Boilers claimed to be the largest in the world were recently installed in the plant of the Ford Motor Company, Detroit, Mich. Under maximum firing conditions it is expected to produce the enormous capacity of 10,000 horse power per unit. A combination of powdered coal and blast furnace gas is used for fuel.

When selecting a boiler be sure to inform the manufacturer regarding the kind of fuel that will be burned under the boiler. A boiler that will develop high efficiency with one fuel will not necessarily develop an equally high efficiency with a different fuel. Also inform the manufacturer regarding the kind of water that will be used for boiler feed water, so that you will be protected against the possibility of priming, foaming, or scale formation.

In order to set the boiler properly within the right kind of setting, the safest procedure is to use the standard specifications for the setting of boilers as written by the Commercial Committee of American Boiler Manufacturers' Association. These specifications cover both water tube boilers and return tubular boilers.

### Water Softeners

Most water that is used for boiler feed is contaminated unless it is rain water or distilled water. Rain water as it falls to the earth is pure, but as soon as it touches the earth it begins absorbing impurities and by the time it reaches the boiler it is more or less contaminated. As this water is then boiled out in the form of steam the solid or organic matter is left behind in the form of scale or in the form of mud, which either adheres to the boiler shell or moves to the bottom in the form of slush. From this scale or mud much trouble is usually experienced.

Some of the impurities cause corrosion, or priming. Among the impurities found in boiler feed are acids and gases in solution, greases, vegetable matter, carbonate of soda, sulphate of magnesium, chloride, sulphate of lime, ordinary mud, salts, magnesia bicarbonates of lime, etc.

Of course there is no cure all for impure boiler feed. Before treating water it should be analyzed in a chemical laboratory or it can be tested in accordance with simple test methods. These simple tests can be carried out in any boiler room. The cost of apparatus for making such tests is not great.

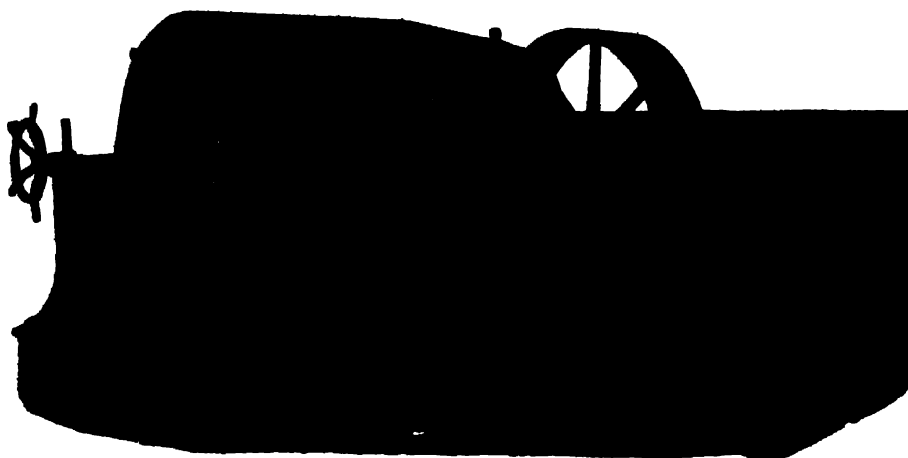
There are as many different methods of removing these impurities or overcoming their effects as there are impurities. In some cases the feed water is heated. Air is kept from the feed, alkali is added, slacked lime or soda is added, the water is filtered. Zeolite is used, iron alum is added, settling tanks are used, barium carbonate is added, soda or carbonate of soda, lime is added, etc. Or the water is simply blown down. In general, though, water is treated in three different ways.

1. Chemically. This involves the use of chemicals, the well known boiler compounds, combination of heat treatment and chemical treatment, the Zeolite process, etc.

2. The thermal method. As the name implies, this method involves the applying of heat to precipitate the scale.

3. Mechanically. Settling basins and filters are used to remove

(Continued on page 50)



## Dilts Machine Works, Inc.

FULTON, N. Y., U. S. A.

Manufacturers of

**BEATING ENGINES  
WASHING ENGINES  
BREAKING, BLEACHING  
and MIXING ENGINES  
Fly Bars—Bed Plates  
Machine Knives**

## The Lockport Felt

Use a Lockport *Cylinder Bottom* and  
*Top* combination for *Board* and watch  
your *Felt Cost*

ASK THE MEN WHO RUN THEM  
YOURS FOR SERVICE

**LOCKPORT FELT COMPANY**  
NEWFANE, N. Y.

## The John W. Higman Co.

29 Broadway

New York City

**QUALITY  
CLAYS**

FOR ALL PURPOSES

ENGLISH AND AMERICAN

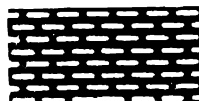
## Perforated Metal Screens For Pulp and Paper Mills

**STEEL, COPPER, BRASS, BRONZE  
and other Alloys**



.085 Inch Round

punched for Centrifugal and  
Rotary Screens, Pulp Washers,  
Drainer Bottoms, Filter Plates, etc.



1/4 x 1/4 Inch Slots

**CHARLES MUNDT & SONS**  
53-55 FAIRMONT AVE. JERSEY CITY, N. J.

## PAPER MAKERS CHEMICAL CO. WESTERN PAPER MAKERS CHEMICAL CO.

EASTON

JACKSONVILLE

HOLYOKE

PENSACOLA

KALAMAZOO

ST. AUSTELL

**CLAYS      ROSIN      SIZE  
SATIN WHITE      FOAM KILLER**

**FELT SOAP and OTHER SPECIALTIES**

## EMERSON MANUFACTURING CO. LAWRENCE MASS.



See the Second-Hand Machinery ads and note the  
ABSENCE of

**EMERSON  
BEATING ENGINES**

They seldom wear out and are never thrown out.  
PERFECT CIRCULATION. NO "PADDLING."

**The "EMERSON" JORDAN**  
does its work with half the power required by others of no  
greater capacity.

**WRITE FOR DETAILS**

# SELECTING STEAM BOILERS AND WATER SOFTENERS

(Continued from page 48)

mud and suspended matter. Filter beds are usually made of such materials as excelsior, coke, sand or crushed stone.

One should be cautious about the use of chemicals. It is better to use no chemicals at all than to use a chemical that might harm the boiler. It is claimed by one authority, for instance, that the constant use of carbonate of soda, in too large quantities, causes the boiler steel to become brittle.

Most so-called "boiler compounds" contain a large percentage of carbonate of soda. Sometimes caustic soda is added—sometimes phosphate of soda, sometimes materials containing tannin or starch.

A water softening process that has gained wide recognition is the so-called Zeolite process in which a material composed largely of sodium compounds is the softening agent. The impure boiler feed water simply dissolves the sodium compounds from the softener and replaces it by leaving the calcium and magnesium which had caused the hardness of the water.

The principle of operation with the Zeolite process is the same as an ordinary filter. The only difference is that the sand is replaced by a bed of zeolite. The water simply filters down through the zeolite slowly and flows from the bottom of the tank as soft water. The entire operation is under pressure. After the water has exchanged all of the sodium held by the zeolite the softener must be regenerated by allowing a salt solution to cover the zeolite bed. This restores the zeolite to its original composition and usefulness. The size of a zeolite softener depends upon the hardness of the water to be treated as well as the capacity.

Where conditions require it a modified form of zeolite process is used. One modified form is called the lime-zeolite process. It all depends upon the impurities contained in the boiler feed and the chemical characteristics of same.

Nobody has ever disputed the fact that scale is a bad thing in any boiler—that it is and has been the cause of much money loss. Scale is bound to form in all boilers into which impure water is admitted. The actual money loss due to a definite thickness of scale is a variable quantity, however. Much depends upon the "kind" of scale—whether carbonate, sulphate, hard, soft, etc.

Many rules have been advanced for computing the money loss due to scale based upon the thickness of the scale. Not one, however, is accurate. They cannot be accurate because no two boiler scales are ever exactly alike. The most used rule, which is probably as good as any, is given in Sames' Mechanical Engineering Handbook as follows:

"Scale of 1/16 inch thickness will reduce boiler efficiency 1%, and the reduction of efficiency increases as the square of the thickness of scale."

Using this rule, for example, if \$8,000 a year is spent for coal, \$1,000 per year is lost due to scale 1/16 inch thick. Scale should be eliminated entirely if possible, or removed frequently. Even thin coatings of scale cause serious losses.

A more accurate table has been prepared by Prof. Schmidt, of the University of Illinois, in which he shows that loss of efficiency depends not alone upon the thickness of the scale, but also upon its composition. The following is Prof. Schmidt's table:

Character of Scale	Thickness Inch	Composition	Loss of Efficiency Per Cent
Hard	1/50	Mostly carbonate	9
Soft	1/32	Mostly carbonate	7
Hard	1/32	Mostly carbonate	8
Soft	1/25	Mostly carbonate	8
Hard	1/25	Mostly sulphate	9
Hard	1/20	Mostly sulphate	11
Soft	1/16	Mostly sulphate	10
Soft	1/16	Mostly carbonate	11

Character of Scale	Thickness Inch	Composition	Loss of Efficiency Per Cent
Soft	1/16	Mostly carbonate	12
Hard	1/16	Mostly carbonate	12
Soft	1/11	Mostly carbonate	15
Hard	1/9	Mostly sulphate	16

In addition to the above paper manufacturers are well aware of the other advantages and uses of soft water in and about the paper mill. When an unsized paper is manufactured, for example, a soft absorbent material is desired. The presence of hardening salts in the water tends to harden the fiber and make it less absorbent. Certain grades of filter paper likewise require a soft water. Waters softened according to the above processes are recommended for these miscellaneous purposes.

## Canadian Pulp and Paper Exports

A Special Bulletin, issued by the Canadian Pulp and Paper Association, states that Canadian pulp and paper exports for October were valued at \$8,954,225, a decline of \$9,751,780, as compared with October, 1920, and of \$502,802, as compared with the preceding month of September.

Exports of news print for the month totaled 1,314,157 cwts., against 1,288,089 cwts. last year, an increase of 26,068 cwts. (1,303 tons), and exceeded September's figures by 190,021 cwts. (6,501 tons). They lost in value \$1,404,640, compared with a year ago, and gained \$7,236 compared with last month.

Exports of pulp of all descriptions for the month fell off by 243,162 cwts. in quantity, and by \$4,490,235 in value, as compared with last year, and 56,388 cwts. in quantity, and \$594,914 in value as compared with September.

Exports of pulpwood for the month amounted to 47,023 cords, valued at \$587,674 compared with 124,390 cords, valued at \$1,752,923, in October last year, and with 49,608 cords, valued at \$604,420, in September.

Comparative details for October, 1920 and 1921, follow, the quantities being stated in hundred weights:

	1920		1921	
	Volume Cwts.	Value	Volume Cwts.	Value
Book paper	4,411	\$43,802	2,239	\$17,718
News print	1,288,089	6,915,294	1,314,157	5,510,604
Other paper		1,169,158		338,397
		\$8,128,254		\$5,866,719
Sulphate	279,080	1,827,448	244,079	743,693
Sulphite, bl.	208,620	1,963,401	111,147	459,613
Sulphite, unbl.	402,565	2,800,095	271,018	852,341
Groundwood	536,329	1,986,807	557,188	1,031,859

Total . . . . . 1,426,594 \$8,577,751 1,183,432 \$3,087,506

Countries of destination were: Paper—United Kingdom, \$96,839; United States, \$5,233,258; other countries, \$536,622. Pulp—United Kingdom, \$660,758; United States, \$2,164,008; other countries, \$262,740.

Comparative figures for the first seven months of the current fiscal year show:

	Paper	Pulp	Total
1921 . . . . .	\$39,246,227	\$18,891,665	\$58,137,892
1920 . . . . .	51,154,018	52,795,463	103,948,481
1919 . . . . .	33,074,162	22,535,388	55,609,550

Exports of pulpwood to the United States for the seven months' periods were as follows:

1921, \$6,134,459; 1920, \$9,556,255; 1919, \$5,526,582.



**C**UT down excessive wrapping paper investment. Why carry two wrapping paper lines for one wrapping paper purpose?

## MOSINEE

presents a perfect wrapping paper, weight and strength for each wrapping purpose. Made in all weights, from 15 lb. to 100 lbs. basis. The one complete, standardized and economical line of wrapping paper sold.

## MOSINEE KRAFT

*"The Wrapper That Delivers the Goods"*

ALVAH MILLER, Pres. TOM T. WALLER, Vice-Pres.  
NATH'L L. MILLER, Secy-Treas.

## Craig-Becker Company INC.

**Domestic and Foreign  
Ground Wood and  
Sulphite**

52 VANDERBILT AVE.  
NEW YORK CITY



EVERYTHING IN

## PULP & PAPER

**J. E. PATTON CO., INC.**

**33 West 42<sup>nd</sup> St.  
New York City**

**(Cable address - Pulp, N.Y.)**



*Yours for Bigger  
and  
Better Business*

## KVP

Genuine Vegetable Parchment  
Pure White Waxed Paper  
Bond—White and Six Colors  
Manifold—Substance 8 and 16.



## CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

**Analytical and Testing Methods of the Technical Association of the Pulp and Paper Industry.**—E. C. Tucker, chairman of the Committee on Standard Methods of Testing Materials, *Technical Association Papers*, Series IV (on sale by Secretary of T. A. P. P. I., 18 East 41st street, New York), June, 1921.—Methods of analysis and sampling are recommended for bleaching powder, aluminum sulphate, cotton rags, and crown filler. **Bleaching Powder.** Ten per cent of the casks should be sampled on receipt of the shipment, by driving a three-quarter inch brass tube through the cask from end to end, transferring the powder to a quart Mason jar, sealing immediately, and quartering the composite sample from the various jars as rapidly as possible in the laboratory. The thiosulphate method is recommended for available chlorine on account of greater convenience than the sodium arsenite method, while it is equally accurate if properly carried out. A test is given for determining the quality of the powder for producing bleach liquor, which consists essentially in preparing a solution of the powder in water under specified conditions, allowing the sludge to settle to the bottom, and titrating the available chlorine in the clear liquor. For determining chlorides, the liquor is boiled with ammonia, acidified with nitric acid, excess of decinormal silver nitrate solution added, the precipitated silver chloride filtered and washed, and the excess of silver nitrate in the filtrate titrated with standard thiocyanate solution. From the total chloride thus found, the hypochlorite found previously is subtracted. For determining chlorate, the solution is boiled with ammonia, reduced by passing a current of  $\text{SO}_2$  through the boiling solution for a few minutes, acidified with sulphuric acid, the excess of  $\text{SO}_2$  neutralized carefully with permanganate, and the total chloride determined with silver nitrate and thiocyanate as above. The chlorate is calculated by subtracting the chloride and hypochlorite previously found. **Aluminum Sulphate.** If the shipment is in packages, samples shall be drawn from 5 per cent of them, and mixed and ground to form a composite sample, if ingots, fragments clipped off from 12 ingots taken at random shall be taken as a representative sample. Insoluble matter is determined by dissolving 10 Gm. in hot water, filtering on a Gooch or alundum crucible, and drying to constant weight. Alumina and iron oxide are determined on an aliquot of the above filtered representing 1 Gm. of the original sample by diluting to 200 Cc., adding 5 Cc. concentrated hydrochloric acid and a few drops of concentrated nitric acid, heating to boiling, adding freshly distilled dilute ammonia drop by drop with constant stirring until a slight excess is present, boiling one minute, allowing to settle, filtering, washing with dilute ammonia and ammonium nitrate, redissolving in hydrochloric acid, oxidizing with a few drops of nitric acid, reprecipitating, filtering and washing as before, and igniting to constant weight over a Meker burner or a blast lamp. Sulphate is determined in the usual manner by precipitating with barium chloride. The filtrate from the alumina determination should be used, as the barium sulphate carries down appreciable amounts of aluminum when it is present in quantity. To determine iron, 5 Gm. of the sample are dissolved in 100 Cc. of hot water, 5 Cc. concentrated sulphuric added, the solution is heated nearly to boiling, permanganate is added drop by drop to a permanent strong pink to oxidize any reducing matter which may be present, the solution is passed through a Jones reductor in the usual manner, cooled, titrated with standard potassium permanganate solution, and the results calculated to  $\text{Fe}_2\text{O}_3$ . The basicity or acidity of the aluminum salt and the combined alumina are determined by Scott's method (See *J. Ind. &*

*Eng. Chem.*, vii, 1059, Dec., 1915). **Cotton rags.** The normal moisture content of baled rags should be fixed at 8 per cent. Wherever possible sampling is to be carried out by putting 10 per cent of the shipment through the rag room promptly after arrival, one pound being taken from each bale as it is opened and put through the thrasher, making the samples as representative as possible, and the samples dried to constant weight at 100° Cent. When it is not possible to use 10 per cent of the shipment promptly on arrival, 10 per cent of the shipment is sampled by drawing one pound from the side of each bale, getting into the bale as far as possible, and the composite sample thus taken dried as above. **Crown filler** ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ). Specifications recommended are packed in clean wooden barrels lined with a clean wrapper; color pure white, equal when dried out to C. P.  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ , tested purity, not more than 33 per cent total water, not more than 15 per cent mechanical water, acidity as received not more than 0.05 per cent calculated as hydrochloric acid titrated with caustic soda using methyl orange as indicator, free from dirt and iron. Ten per cent of the shipment is sampled by boring through the side of the barrel with an auger and extracting the sample with a tuer. Moisture is determined by igniting 1 Gm. in a platinum crucible to constant weight. The combined moisture is calculated according to the formula  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ , and the remainder is mechanical water. For determining color, some of the dried sample is compared with standard C. P. calcium sulphate by north light. About 3 Gm. each of the standard and of the sample are placed on a sheet of black paper with a straight line division, a sheet of paper is placed over the samples and a penknife is drawn over the paper in the direction of the line of division to smooth the samples; the sheet of paper is removed and the colors are compared. The acidity is determined on 2 Gm. by titration with 0.02 normal sodium hydroxide solution using methyl orange as indicator, and is calculated to hydrochloric acid. The dirt is determined by dissolving in C. P. concentrated hydrochloric acid, diluting, filtering, and comparing the residues left on the paper with similar residues from a standard sample or from previous shipments.—A. P.-C.

**Analysis of Sulphite Cooking Acid.**—Frik Öman, *Teknisk, Tidskrift Kemi och Bergsvetenskap*, 1915, *Technical Association Papers*, IV, 1, 61-69 (June, 1921).—Translation by Carl L. Fineman, and W. E. Byron Baker. A critical review of various methods used for the works control of sulphite cooking acid, with a description of two new methods worked out and tested by the author. The two unknowns to be determined are  $\text{SO}_2$  and  $\text{CaO}$ ,  $\text{SO}_2$  being unimportant from a cooking point of view. Mitscherlich's method (determination of the specific gravity in terms of degrees (Baumé)), Winkler's method (titration of total  $\text{SO}_2$  with iodine and of free  $\text{SO}_2$  with sodium hydroxide and phenolphthalein in separate portions of the sample), Hohn's method (determination of total  $\text{SO}_2$  with iodine and free  $\text{SO}_2$  with sodium hydroxide and phenolphthalein in the same portion of the sample), and Streeb's method (titration with sodium hydroxide using first methyl orange and then phenolphthalein) are shown to be inaccurate even for works control. Determination of  $\text{SO}_2$  by titrating the acid into iodine gives the same results as precipitation as barium sulphate, the error not being greater than +0.4 per cent of the  $\text{SO}_2$  present. If the iodine is titrated into the acid the error is -0.8 per cent. The following four methods for the determination of lime have been investigated and found unsuitable: (1) Evaporating the free  $\text{SO}_2$  on a waterbath and titrating the

(Continued on page 54)

# CALDWELL SERVICE



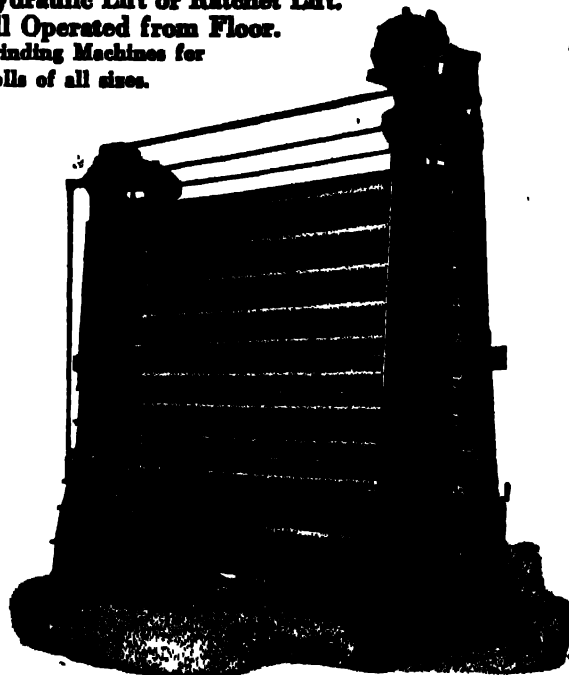
**HALF** a million dollars worth of well-selected stock, constantly maintained, and an organization keyed up to the theory that plant efficiency is measured by the number of orders shipped on the day of receipt, accounts for Caldwell service. Let us figure on your requirements.

**H. W. CALDWELL & SON CO.**  
LINK-BELT COMPANY, OWNER  
CHICAGO, 17th Street and Western Avenue  
NEW YORK, 299 Broadway



# CALENDERS

Furnished Complete, with Electric Motor Lift, Hydraulic Lift or Ratchet Lift. All Operated from Floor. Grinding Machines for Rolls of all sizes.



**LOBDELL CAR WHEEL CO.**  
Wilmington, Del., U. S. A.

# FARREL

## Roll Grinders



For the sake of your product regrind your used worn rolls on a Farrel roll grinder—a heavy, sturdy instrument of precision—we have made and used them ourselves for years.

Write for Bulletin L-755

Established 1848

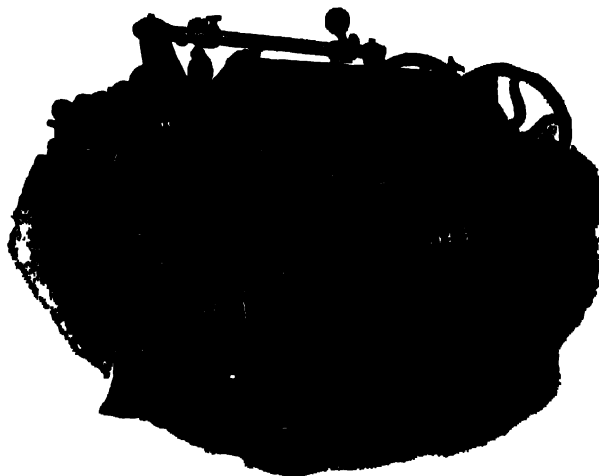
**Farrel Foundry & Machine Company**  
Ansonia, Conn., U. S. A.  
Branch Plant: Buffalo, N. Y.

*Farrel calendars and chilled rolls are known for the highest in quality.*

*We are the largest makers in the world of these products.*

# Paper Cutters

Single, Duplex and Diagonal



Cutter Knives Patent Top Sitters

**HAMBLET MACHINE CO.**  
Lawrence, Mass.

## Recent Incorporations

**LAGLER PAPER PRODUCTS COMPANY**, Manhattan, New York. Capital, \$40,000, incorporators, O. Wuest, D. R. Daly, H. G. Smith, attorneys, York & York 7 Dey street.

**WALLABOUT PAPER SPECIALITIES CORPORATION**, Brooklyn, New York. Capital, \$30,000, incorporators, L. and J. Blazer, J. Karper; attorney, S. Blazer, 52 Wall street.

**UNIVERSAL PAPER COMPANY OF PENNSYLVANIA**, manufacture sanitary seat protectors, capital \$8,000,000, attorney, Corporation Service Company, Wilmington, Delaware.

**NORMAN PAPER AND TWINE COMPANY**, Manhattan, New York, capital, \$5,000, incorporators, H. F. and S. and J. Mandelbaum, attorney, J. M. Mandelbaum, 1 Madison Avenue.

**PINE TREE PULP COMPANY**, Gardiner, Maine, to manufacture groundwood, paper and other wood products. Capital stock, \$100,000; all common, nothing paid in, par value, \$100, shares subscribed, 3. President and treasurer, J. Harold Machette, Brunswick; clerk, Robert K. Eaton, Brunswick, directors, J. Harold Machette, Robert K. Eaton and Edward W. Wheeler, all of Brunswick.

## CURRENT PAPER TRADE LITERATURE

(Continued from page 52)

combined  $\text{SO}_2$  with iodine, error -35 per cent. (2) Expelling the free  $\text{SO}_2$  by boiling in vacuo and titrating with iodine, error +30 per cent to +40 per cent. (3) Adding an excess of hydrochloric acid, evaporating on a waterbath, and determining chlorine, the results were concordant, but too low, error -6 to -19 per cent. (4) Adding an excess of 0.1 normal sulphuric acid, expelling  $\text{SO}_2$  on the waterbath, and titrating the excess of sulphuric acid with 0.1 normal alkali, error -50 per cent owing to the oxidation of the  $\text{SO}_2$  to  $\text{SO}_3$ . Oman proposes determining total by iodine and the specific gravity by means of a sensitive hydrometer, and obtaining the lime content from a previously prepared table. A correction must be applied for the sulphate content of the acid. The error is probably not more than 4 or 5 per cent of the lime. The method can be used for raw acid, but not for acid containing relief gases or relief liquor. Oman also proposes the following method: 30 Cc ammonia are added while stirring to 100 Cc of the clear liquor, after fifteen minutes it is filtered and the precipitate washed three times with 50 Cc of 15 per cent ammonia each time. It is washed into a 500 Cc volumetric flask, dissolved in 10 Cc of concentrated hydrochloric acid, diluted to 500 Cc, shaken, and the solution titrated by running into 10 Cc of 0.1 normal iodine, using starch as indicator. The method was tested on both pure and commercial liquors in which lime had been determined gravimetrically, and the maximum errors were +10 per cent, +20 per cent, and +25 per cent for Winkler's, Hohn's and Oman's methods, respectively. (For criticism of this method see "Analysis of Sulphite Acid," by A. Sander, translated by Clarence Jay West in *Paper*, xxvii, 17, 21-23, Dec. 29, 1921.)—A. P.-C.

**Steam Economy in Paper Mills**—R. W. Loeper, *Technical Association Papers*, Series IV (June, 1921).—Report of the T. A. P. P. I. Committee on Light, Heat and Power. Discussion of the economical operation of steam prime movers in paper mills according to the nature and arrangement of the prime movers, showing the total annual cost of steam per ton of daily production for various arrangements. The discussion which followed the presentation of the paper is also given. A. P.-C.

**Ventilation of Paper Machine Rooms**—W. H. Howell, Jr., *Technical Association Papers*, IV, 40-42 (June, 1921).—In the Briner economizer the hot moist air from the paper machine hood is used to warm up the cold incoming air, the exchange of heat

taking place through corrugated plates. Two auxiliary coil fan heaters are provided for taking care of heating on Sundays and during a shutdown. In an actual mill test of the apparatus, the economizer raised outdoor air (at 34° Fahr. and practically 100 per cent humidity, during a wet snow storm) to 107° Fahr. in sufficient quantity for all ventilation purposes, the heat units economized being equivalent to 77 h.p. continuously for twenty-four hours, without the use of steam. There was a condensation of about 300 gallons per hour. In this particular case, assuming cost at \$10 a ton as fired, the net saving is estimated at \$26.20 a day. The amount of waste heat going through the roof of paper machine rooms is about five h.p. per ton of paper per twenty-four hours.

**Paper Mill Electrification**—Stephen A. Staeger, *Technical Association Papers*, IV, 1, 30-34 (June, 1921).—General discussion of the advantages of electrifying paper mills, as regards laying out of buildings (for a new mill under construction), maintenance of the equipment, power losses, personal and fire hazard, paper machine drive, heat balance, determination of the load at all times by means of indicating and recording instruments, pulp grinder load regulator, preparation of electrolytic bleach, and use of portable electric welding outfit.—A. P.-C.

**Control Analyses of Sulphite Cooking Acid**—Peter Klason, *Svensk Pappers-Tidning*, xxiii, 11 and 12, *Technical Association Papers*, IV, 1, 71-76 (June, 1921).—Detailed investigation into the accuracy of Winkler's and Hohn's methods for the analysis of sulphite liquor. The results showed that both methods are based on correct conceptions, that the basis reaction of the sodium sulphite does not perceptibly affect the titration, and that both methods give identical results. The errors which occur must be attributed to the analytical chemist, his titration solutions, his readings, and, also but not least, his sampling. Samples should never be taken by suction, the acid should always be pressed up into the pipette. A. P.-C.

**Solution of Bleaching Powder**—M. Champion, *Bull. Soc. Chim. Belg.*, xxix, 24-28 (1920), *I. Soc. Chem. Ind.*, xl, 431A (June 30, 1921).—Mixtures of bleaching powder and water containing from 1 to 20 per cent of the former were shaken for three hours, allowed to settle, and in the clear supernatant solution the active oxygen, total chlorine and calcium, and the density were determined. If the concentration exceeds 4 per cent there is a risk of some of the active oxygen being retained in the residual sludge from the preparation. The figures on the whole show rather higher proportions of calcium and total chlorine to active oxygen than those required by the formula  $\text{Cl} \cdot \text{CaCl}_2$ .—A. P.-C.

## Paper Box Manufacturers Dine

The Paper Box Manufacturers' Association dined at the Hotel McAlpin Tuesday evening. About 300 members present were treated to an interesting address by Arthur S. Allen, of Phillip Ruxton, Inc., on the psychology of the paper box and its importance in effecting sales.

The point was made that some judgment should be exercised in choosing the color of the box to harmonize with the contents that the purchaser be not antagonized by harsh color stimulations. The Munsell color system was described at length.

Others who spoke were: C. M. Coover, of Lebanon, Pa., national president of the National Association of Paper Box Manufacturers; Walter P. Miller, president of the Philadelphia Association of Paper Box Manufacturers; Joseph H. Perry, president of the New England division of the National Association of Paper Box Manufacturers; Walter Trum, chairman and president of the Metropolitan Paper Box Manufacturers' Association; C. A. Leroy, president of the Brooklyn Association of Paper Box Manufacturers, and William Van Ness, president of the Northern New Jersey Paper Box Association.

## WOOD FLOUR

Various degrees of fineness and either fibrous or granular.  
Made from first growth Spruce and Pine, by approved processes.

**UNION WOOD FLOUR CO., INC.**  
Hudson Falls, N. Y.

## UNION TALC COMPANY

Finest Grades of Agalite

132 Nassau Street

New York

## Salomon Bros. & Co.

IMPORTERS OF

**All Grades of Rag and Paper Stock**

200 FIFTH AVENUE, NEW YORK

COTTON WASTE

LINTERS

RAMIE

### ENGINEERS PLANNING POWER TRANSMISSIONS

Secure Data and Estimates of "MORSE" DRIVES  
SAVE Construction, Space, Light, Fuel Producing More with Less

**MORSE CHAIN CO. ITHACA, N. Y.**

Engineering Service, Assistance, Bulletins

Baltimore	New York	Chicago	Pittsburgh	Montreal
Boston	Kansas City	Cleveland	San Francisco	Minneapolis
Charlotte, N. C.	Detroit	Philadelphia	Atlanta	St. Louis

## SHERMAN PAPER COMPANY

Manufacturers of Roll Newsprint. H. W. & W. Process

*Entire Product for 1921 Contracted*

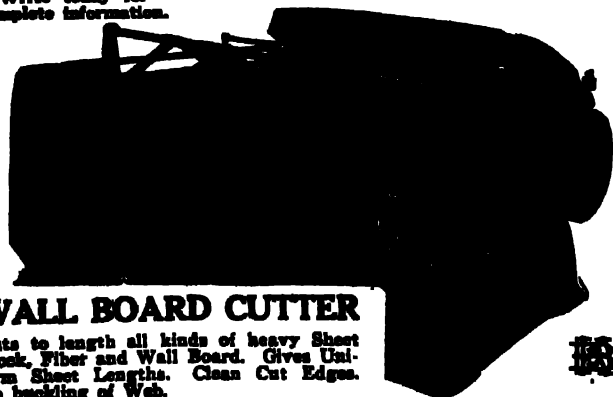
Mills at Felts Mills, Great Bend & Lefebvre, N. Y.  
Main Office, Trust Co. Building, Watertown, N. Y.

## Job Lots, Rejections, Side Rolls Wanted

**SPOT CASH** paid for jobs in bond paper, white or colors, any grade that will cut down to 11 x 17, any weight. Send samples, with lowest spot cash prices. No lot too small, and none too large.

**MIDWEST PAPER CO., 712 Federal Street, Chicago, Ill.**

Write today for  
complete information.



### WALL BOARD CUTTER

Cuts to length all kinds of heavy Sheet  
Stock, Fiber and Wall Board. Gives Uni-  
form Sheet Lengths. Clean Cut Edges.  
No buckling of Web.

**M. D. KNOWLTON CO., 22 Elizabeth St., Rochester, N. Y., U. S. A.**

# CLAY

**Atterbury Bros., Inc.**  
Sole Agents  
145 Nassau St., N. Y.

**West Carclaze China  
Clay Co.,**  
St. Austell, England

## AGALITE FILLER

**UNITED STATES TALC CO.**

GOUVERNEUR

NEW YORK

Manufacturers  
of  
All Special  
Small Roll  
Products



Adding  
Machine,  
Cash Register,  
Die Wiping,  
Hand Rolls,  
Etc., Etc.

**PAPER MANUFACTURERS CO., Inc., Phila., Pa.**

## CRANE BRASS VALVES

## Papier-Zeitung

Berlin SW 11 (Germany)

*Founded by Carl Hofman, 1876*

appears twice a week

Covers the whole paper trade (paper making, transforming,  
stationery). More than 12,000 bonafide sub-  
scribers all over the world.

Subscription: 4 Dollars

## STEARNS TANKS

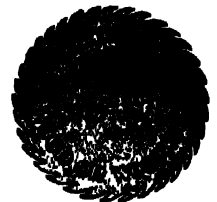
**BLOW-PIPES, STORAGE  
TANKS, ACID TOWERS, Etc.,  
OF WOOD.**

**HEAVY PAPER MILL WORK  
IS OUR SPECIALTY.**

**70 YEARS' EXPERIENCE**

*Enquire for quotations  
Have you our catalogue?*

**THE A. T. STEARNS LUMBER COMPANY**  
125 Taylor St., Neponset, Boston, Mass.



### Aldrich Paper Co. to Build Large Plant

[FROM OUR REGULAR CORRESPONDENT]

NATURAL DAM, N. Y., November 30, 1921.—A new and larger paper mill will be erected next summer at Natural Dam by the Aldrich Paper Company in place of the single machine plant burned June 4, 1920, according to announcement just made by Nelson K. Caswell, head of the company. He could not say now whether the mill would contain two or three machines, but he said that if conditions improve during the winter in the paper market the plant would be erected.

Already the company is erecting a new pulp mill which has a capacity of about 20 tons a day, and this will be completed in the near future.

Following the fire there was much discussion of propositions being made for the purchase of the power owned by the company, and the possibility that no paper mill would be erected. This proposition has not developed into maturity and the officers of the company have now decided to rebuild.

The company owns two power sites at Natural Dam capable of developing 2,500 horse power under present conditions. Another site at Emeryville can develop 2,100 horse power, while the property in Gouverneur village can develop 500 horse power. This makes a total of about 5,100 horse power available under normal flow of the river. There is talk of linking up these powers into one system for use in the new plant to be established.

### J. L. N. Smythe Co. Buy Windsor Locks Mill

The Gibbs-Brower Company announces the sale of the Windsor Locks Paper Mills, Inc., of Windsor Locks, Conn., for Norman N. Fowler to the J. L. N. Smythe Company, of Philadelphia, Pa.

The Fowlers of Holyoke and Springfield, Mass., have long been known in the paper mill world, and Mr. Smythe and his associates have likewise been active in the paper jobber's field for many a moon. Both parties enjoy an enviable reputation in the trade, and the transfer of this paper mill is of much interest to the industry in general.

Wm. S. Fowler has been operating the Windsor Locks mill and will retire to accept a responsible position in one of the large Holyoke mills.

C. H. Morian, general manager of the J. L. N. Smythe Company, will also be general manager of the newly acquired mill.

Mr. Morian is a very able man and has a complete knowledge of the manufacture of paper, having been brought up in the paper business in the mill of the Racquette River Paper Company at Potsdam, N. Y.

The J. L. N. Smythe Company expects to spend a considerable amount of money at once in revamping the equipment, and will continue to operate the mill on crepe tissue toilet and towel papers.

### New Paper Company May Go to Nashville

CHATTANOOGA, Tenn., November 28, 1921.—Work scheduled to have begun several days ago on the new home of the Southern Cotton and Paper Company in Alton Park, of which Mercer Reynolds is the principal stockholder and promoter, has been delayed indefinitely, according to a statement made by Mr. Reynolds. It was learned that interests in the city of Nashville are trying to influence certain persons connected with the company to locate the new paper plant in that city in preference to Chattanooga. Among the reasons advanced for the proposed change of location is the greater consumption of paper in the Nashville territory. It having been estimated that the consumption there is eight times what it is here.

The company recently formed by Mr. Reynolds contemplates the manufacture of paper out of cotton linters. The company has a patent on a process for manufacturing a high-grade bond paper from the linters. The process owned by the new company was invented and perfected by Mr. Reynolds. Several persons interviewed on the probability of a change of location from this city to Nashville expressed themselves in favor of locating the plant in the most logical territory.

### Paper Exhibition Opens in New York.

The paper exposition arranged by the American Writing Paper Company and its five New York City service houses opened Tuesday in the United Publishing Corporation Building, 239 West Thirty-ninth street. Among the exhibits are a complete modern laboratory and paper-testing equipment in full operation, a miniature paper making machine, complete envelope machine in operation, and all modern equipment for determining strength, folding qualities and for testing color and other qualities of paper. The show will continue until Saturday evening, December 3.



# BLEACHED SULPHITE

# ALUM

FOR THE PAPER MAKER

Manufactured by

The Jarecki Chemical Co.

QUALITY SERVICE

Sole Selling Agents

ISAAC WINKLER & BRO.

CINCINNATI :: :: NEW YORK



## Splicing Tissue

INDIAN AND STAR BRANDS

specially prepared for PAPER MILLS

E. M. Sergeant Co.

15 EAST 26TH STREET

New York, N. Y.

## FOURDRINIER WIRES

Cylinder Moulds and Dandy Rolls Made and Repaired  
Lettering and Monograms for Watermarks

THOMAS E. GLEESON, Inc.

Manufacturers of Wire Cloth of All Descriptions

411-413 John Street, East Newark, N. J.

Specialty—The Finest Wires for Tissue and Fine Grade Papers

## Dry Rosin Size



Brittle and easily soluble. Cheapest size out. Cheaper than mill made size. Also our hot and cold water sizes; standard quality. Cleaner, more uniform and economical than either mill made sizes or those offered by our competitors. Also Arabol Paper Size, Splicing Gums, Condensed Paste Powder, Paper Makers' Starches.

Arabol Manufacturing Co.

100 William Street : NEW YORK

**WE** specialize in durable Fourdrinier Wires and Cylinder Wires in any metal desired up to and including 120 mesh in plain woven, double warp, triple chain, and twisted weaves.

Save two-thirds the cost and three-quarters of the expense of putting on brass and bronze wires by using our nickel alloy wires.

Joseph O'Neill Wire Works

Port Chester, N. Y.

Established 1906

FOREIGN and DOMESTIC  
Paper Stock  
New Cuttings  
and Rags

**CASTLE, GOTTHEIL & OVERTON**

Jute Stock  
Sizing, Sulphite  
and Soda Pulps  
200 FIFTH AVE. NEW YORK

## Van Noorden Skylights



are as

Indispensable

To a modern Paper Mill as its important inner equipment. "DAYLITE" means Nature's light without weather or condensation drip.

E. VAN NOORDEN & CO. 103 Magazine St. Boston, Mass.

## "TYLER" Fourdrinier Wires

In all widths up to 250 inches

CYLINDER FACES

WASHER WIRES

In Brass, Bronze and Phosphor Bronze

The W. S. Tyler Company  
Cleveland, Ohio

## New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,  
WEDNESDAY, November 30, 1921

The New York paper market is in a very fair condition, considering what it has gone through in the last year or so, and only those who are disgruntled because all times are not boom times, are pessimistic. With the tremors necessarily registered in the paper market by the transition of extravagant war consumption to the present condition of careful buying and sparing consumption still ring in the ears of paper manufacturers and merchants it is essential for peace of mind to recall that after all what leads to most general prosperity is the consistent purchasing of what is essential, no more and no less, and not the spectacular buying so common in boom times. It is certain that this kind of conservative buying is just what is going on in today's market so that all paper interests are bound to emerge soon from the more doubtful stages of recovery to full fledged and healthy normalcy. In addition to conservatism in consumption and in buying other factors which may assist in improvement are optimism, which has a powerful psychological effect, and time itself which will bring back transportation rates, labor conditions, and the foreign exchange to a level conducive to better business. Several bright spots are apparent in the paper market, and of these kraft is perhaps the brightest. Prices of paper and paper stock tend to fall and fluctuate, while all pulps but soda pulp have advanced in price. Just why paper and paper stock should ease off when pulps are becoming more active is a question. Once again the elements of demand and supply are at the bottom of the phenomena, but it is another question what forces manipulate them.

The news print market is doing well at present with consumption steady or increasing slowly. Less interest is being taken in foreign news print than might be expected much to the satisfaction of domestic manufacturers. At the same time, foreign competition is doing its share in causing slight price reductions for the domestic product. One company has already reduced its price \$5.00 a ton for the first quarter of the new year, and others are expected to follow the example.

The demand for book paper is slack and manufacturers have to content themselves with hopes for more active business after the new year when it is expected that a general campaign for more advertising than ever will take place through the country. Prices are slightly lower, coated book S & S C. selling at 6.70 to 7.50, M. F. at 6.45 to 7.25, coated and enamel at 8.25 to 10.25, and lithograph at 8.25 to 11.25.

The fine paper market is quiet and may be expected to remain so until a more general prosperity is ushered in. Stocks are being kept low on every side, both on account of the uncertainty in prices and on account of the usual desire to clean house before January 1. Orders for small quantities keep the feeling of the trade optimistic while the stage is being set for improved business to come inside of two or three months.

Tissue was the leader in the return to normalcy, and having assumed that responsible position is giving a very good account of itself, although it is not quite so active as during the flurry of improvement in the first two weeks of October. Prices are firm and sales moderately plentiful.

The production of kraft is still hurried, due to the heavy demand and little concern is entertained for the welfare of so busy a market. Kraft mills are working full time in contrast to the fine paper mills which are struggling along on part time basis. The feeling in this department is excellent and tells the story of what will soon be true in other markets if indications are correct.

### Mechanical Pulp

The mechanical pulp market is fairly active and interest tends

to increase as manifested by a stronger demand. The supply of groundwood is not plentiful because its production was hampered throughout the last summer by low water and so the present modest demand causes a marked strengthening in the market. The prices have increased somewhat and are now quoted at from \$32.00 to \$36.00 per ton.

### Chemical Pulp

Prices for chemical pulp are higher and firm for the most part. Soda pulp alone has not advanced in price, although it is expected that an increase will be effected as soon as the demand is slightly stronger. Kraft pulp is scarce, while the supply of bleached grades appears plentiful for present use. The buyers of the cheaper grades of foreign pulp are generally disappointed in the product which frequently does not come up to the standard of the sample and proves wholly unsatisfactory in many cases. The danger of foreign competition is greatly minimized by this inferior pulp and domestic prices are looked to stay up for a considerable period, for the mills prefer to hold rather than to sell at extravagantly low prices. Imported bleached sulphite is quoted at from 4.25 to 5.25 cents a pound, bleached sulphate at 3.50 to 4.00 cents, and No. 1 kraft at 2.75 to 3.00 cents. Domestic bleached sulphite sells at 4.50 to 5.25 and kraft at 2.75 to 3.00.

### Old Rope and Bagging

There has been some easing off in the old rope and bagging market, while prices are generally lower and subject to spasmodic fluctuation. The market is slow and as one dealer remarked it would be a buyers' market if there were any buyers. The belief is current that more interest will be shown in this department within the next two or three months.

### Rags

The rag market is quiet except for roofing rags, which are much in demand now that some impetus has been acquired in the increase of building. Sales in other rags are lagging, and altogether the situation is not the best, although improved considerably over a few months ago.

### Waste Paper

Interest in waste paper has slackened, and although small sales are moderately numerous, it requires a superhuman effort to glean orders of any size. Prices are down a little in the case of each variety of waste paper, and are unsteady for the most part. Foreign competition is a continual menace, although importations are inconsequential at present.

### Improvement in Wisconsin

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, WIS., November 29, 1921. Every week sees an improvement in business conditions in the Wisconsin paper industry. A survey of shipping yards in the Fox river valley revealed that more paper is being offered to railroads for transportation than for nearly a year and the amount is constantly growing.

The Riverside Fiber and Paper Company has increased its production and now is running all its paper machines with full crews full time, including Sundays. Other mills also are reporting a considerable increase, and the number of men working is being increased quite steadily. The mills, however, never again will employ as many men as they did during the war on the same production.

One employment manager in the valley declared that his smaller working force is capable of turning out as much paper as the much larger force did during the war in the same time. There is a different working atmosphere now and much less murmuring is heard. Only a few weeks ago a union organization, in a public statement, declared that the present scale of wages was not sufficient for livelihood, but the cost of living here has been reduced somewhat of late and there is much less complaint.

# Market Quotations

## Paper Company Securities

New York Stock Exchange closing quotations November 28,

1921:	Stocks	BID	ASKED
American Writing Paper Company, pref		26	28
International Paper Company, com		54 1/2	55
International Paper Company, pref, stamped		71	74 1/2
Union Bag & Paper Corporation		71 1/2	72 1/2

Because of the unusual conditions prevailing in the various markets quotations are more or less nominal

Paper	F o. b. Mill	
Ledgers	10.50	@ 30.00
Bonds	9.00	@ 55.00
Writings—		
Extra Superfine	13	@ 25
Superfine	13	@ 20
Tub Sired	13	@ 16
Engine Sired	9.00	@ 15.00
News—f. o. b. Mill—		
Rolls, contract	4.00	@ —
Rolls, transit	4.00	@ 4.25
Sheets	4.00	@ 4.50
Side Runs	3.50	@ 4.00
Book, Casced—f. o. b. N. Y.—		
S & S	6.70	@ 7.50
M F	6.15	@ 7.25
Coated and Fm—		
Amel	8.25	@ 10.25
Lithograph	8.25	@ 11.25
Tissues—f. o. b. N. Y.—		
White, No. 1	.80	@ 1.00
Colored	1.10	@ 2.25
Anti-Fatish	.80	@ 1.00
Silver Tissue	1.50	@ 2.70
Manila	.75	@ .80
Kraft—f. o. b. Mill—		
No. 1 Domestic	6.75	@ 7.00
No. 2 Domestic	5.75	@ 6.00
Imported	6.00	@ 6.50
Sulphite Screenings	3.00	@ 3.50
Manila—		
No. 1 Jute	8.50	@ 9.00
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	5.50	@ 6.00
No. 2 Wood	5.00	@ 5.25
Butchers	4.90	@ 5.70
Fiber Papers—		
No. 1 Fiber	6.00	@ 6.25
No. 2 Fiber	5.25	@ 5.50
Common Bogus	1.80	@ 2.10
Card Middles	4.00	@ 5.00
Boards—per ton—		
News	35.00	@ 40.00
Straw	35.00	@ 40.00
Chip	33.50	@ 40.00
Binders' Board	65.00	@ 75.00
Sgl. Min. Ld. Chip	50.00	@ 55.00
Wood Pulp	80.00	@ 90.00
Container	65.00	@ 70.00
Wax Paper—		
Self Sealing White		
28 and 30 lb	1.2	@ 1.3
Waxed Tissue	1.52	@ 1.86

## Mechanical Pulp

(Ex-Dock)	
No. 1 Imported	32.00 @ 36.00
F o. b. Pulp Mills.	
No. 1 Domestic	33.00 @ 36.00

## Chemical Pulp

(Ex-Dock, Atlantic Ports)	
Sulphite (Imported)—	
Bleached	4.25 @ 5.25
Easy Bleaching	3.25 @ 3.50
No. 1 Strong unbleached	2.75 @ 3.15
No. 2 Strong unbleached	2.50 @ 2.75
No. 1 Kraft	2.75 @ 3.00
Sulphite—	
Bleached	3.50 @ 4.00
(F o. b. Pulp Mill.)	
Sulphite (Domestic)—	
Bleached	4.50 @ 5.25
Strong unbleached	2.75 @ 3.50
Easy Bleaching	
Sulphite	3.25 @ 3.50
News Sulphite	2.75 @ 3.00
Mitscherlich	3.25 @ 3.75
Kraft (Domestic)	2.75 @ 3.00
Soda bleached	4.00 @ 4.25

## Domestic Rags

Prices to Mill, f. o. b. N. Y.	
Shirt Cuttings—	
New White, No. 1	10.50 @ 11.00
New White, No. 2	6.25 @ 6.75
Silicas, No. 1	6.00 @ 6.50

New Unbleached	8.75	@ 9.50
Washables	4.50	@ 5.00
Fancy	5.50	@ 6.00
Cottons—according to Grades—		
Blue Overall	6.5	@ 6.50
New Blue	5.25	@ 6.00
New Blue Soft	4.25	@ 5.50
New Light Sec-		
onds	2.75	@ 3.00
O D Khaki Cut-		
tings	3.75	@ 4.00
Corduroy	3.00	@ 3.25
New Canvas	6.00	@ 6.50
New Black Mixed	2.75	@ 3.25

White, No. 1—		
Repacked	6.00	@ 7.00
Miscellaneous	5.25	@ 5.50
White No. 2—		
Repacked	3.3	@ 3.50
Miscellaneous	2.75	@ 3.00
St. Soiled White	1.65	@ 1.75
Thirds and Blues—		
Repacked	2.00	@ 2.25
Miscellaneous	1.35	@ 1.50
Black stockings	2.00	@ 2.25
Cloth Strippings	1.15	@ 1.25
No. 1	1.10	@ 1.15
No. 2	.70	@ 1.00
No. 3	.70	@ .80
No. 4	.70	@ .80
No. 5A	.70	@ 1.00

## Foreign Rags

New Light Silicas	6.00	nominal
Light Plannelettes	6.75	nominal
Unbleached Cottons	7.50	nominal
New White Cut-		
tings	9.50	nominal
New Light Oxfords	6.00	nominal
New Light Prints	4.50	nominal
New Mixed Cut-		
tings	nominal	
New Dark Cuttings	2.50	nominal
No. 1 White Linens	8.75	nominal
No. 2 White Linens	6.50	nominal
No. 3 White Linens	5.00	nominal
No. 4 White Linens	3.50	nominal
Old Extra Light		
Prints	2.25	nominal
Ord Light Prints	1.75	nominal
Med Light Prints	nominal	
Dutch Blue Cottons	2.10	nominal
German Blue Cot-		
tons	1.75	nominal
Get Blue Linens	3.00	nominal
(Checks and Blues	1.50	nominal
Dark Cottons	1.15	nominal
Shoppery	1.05	nominal
French Blues	2.00	nominal

## Bagging

Prices to Mill f. o. b. N. Y.	
Gunny No. 1—	
Foreign	1.00 @ 1.10
Domestic	1.10 @ 1.20
Wool, Tares, light	1.20 @ 1.30
Wool, Tares, heavy	1.25 @ 1.40
Bright Bagging	1.20 @ 1.30
No. 1 Scrap	1.10 @ 1.20
Sound Bagging	.75 @ .85
Manila Rope—	
Foreign	5.00 @ 5.25
Domestic	5.25 @ 5.50
New Bu Cut	2.00 @ 2.25
Hessian Jute Threads—	
Foreign	4.25 @ 4.50
Domestic	4.00 @ 4.25
Mixed Strings	1.00 @ 1.15

## Twines

Cotton—(F. o. b. Mill)	
No. 1	32 @ 34
No. 2	30 @ 32
No. 3	26 @ 28
India, No. 6 basis—	
Light	17 @ 18
Dark	17 @ 18
B. C. 18 Basis	39 @ 40
A. B. Italian, 18	
Basis	50 @ 60
Finished Jute—	

Light, 18 basis	28 @ 29
Dark, 18 basis	26 @ 28
Jute Wrapping, 2-6	
Fly—	
No. 1	20 @ 25
No. 2	20 @ 22
Jute Rope—	
5 ply and larger	12 @ 15
Fine Jute Yarn—	
5 ply and larger	18 @ 20
4-ply	19 @ 21
3-ply	20 @ 22
Unfinished India—	
3-ply and larger	16 @ 17
Paper Makers Twine	
Balls	10 1/2 @ 12 1/2
Box Twine, 2-4 ply	14 @ 16
Jute Rope	12 @ 14
Amer Hemp, 6	32 @ 34
Sisal Hay Rope—	
No. 1 Basis	15 @ 18
No. 2 Basis	11 @ 13
Sisal Lath Yarn—	
No. 1	15 @ 17
No. 2	9 @ 12
Manila Rope	15 @ 18

## Old Waste Papers

(F o. b. New York)	
Shaving—	
Hard White, No. 1	1.75 @ 1.00

## CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper	F o. b. Mill	
All Rag Bond	40	@ —
No. 1 Rag Bond	30	@ 40
No. 2 Rag Bond	18	@ 20
Water Marked Sul-		
phite Bond	11	@ 15
Sulphite Ledger	9	@ 12
Sulphite Ledger	14	@ 15
Superfine Writing	19	@ 27
No. 1 Fine Writing	17	@ 25
No. 2 Fine Writing	15	@ 23
No. 3 Fine Writing	11	@ 14
No. 1 M. F. Book	6	@ 7
No. 1 S. & S. C.		
Book	6 1/2 @ 7 1/2	
Coated Book	8 1/2 @ 10 1/2	
Coated Label	8 1/2 @ 10 1/2	
News—Rolls, mill	4	@ 5
News—Sheets, mill	4 1/2 @ 5 1/2	
No. 1 Manila	5 1/2 @ —	
No. 1 Fiber	5 1/2 @ —	
No. 2 Manila	5 @ —	
Butchers' Manila	4 1/2 @ —	
No. 1 Kraft	6 1/2 @ —	
No. 2 Kraft	6 @ —	
Wood Tag Boards	5 @ —	
Screenings	3 @ —	
Boards, per ton—		
Plain Chip	15.00	@ 40.00
Solid News	50.00	@ 55.00
Manila Lined		
Chip	47.50	@ 55.00
Container Line—		
25 Test	55.00	@ 60.00
100 Test	62.50	@ 65.00

## PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper	
Bonds	.10 @ .60
Ledgers	.15 @ .40
Writings—	
Superfine	.15 @ .20
Extra fine	.12 @ .22
Fine	.20 @ .30
Fine, No. 2	.20 @ .25
Fine, No. 3	.15 @ .20
Book, M. F.	.06 @ .09
Book, S. S. & C.	.08 @ .15
Book, Coated	.08 @ .15
Coated Lithograph	.10 @ .15
Label	.08 @ .15
News	.05 @ .07
No. 1 Jute Manila	.18 @ .18 1/2
Manila Sul., No. 1	.09 1/2 @ .10
Manila No. 2	.08 1/2 @ .09
No. 2 Kraft	.07 @ .07
No. 1 Kraft	.02 @ .08
Common Bogus	.02 @ .03 1/2
Straw Board	35.00 @ 45.00
News Board	40.00 @ 45.00
Chip Board	30.00 @ 35.00
Wood Pulp Board	90.00 @ 100.00
(Carload Lots)	
Binder Boards—	
Per ton	\$65.00 @ 75.00
Carload lots	\$60.00 @ 65.00
Targed Felts—	
Regular	75.00 @ 80.00
Slaters	80.00 @ 85.00

Hard White, No. 2	3.00 @ 3.25
Soft White No. 1	2.85 @ 3.05

## Flat Stock—

Stitchless	1.40 @ 1.50
Over Issue Mag	1.40 @ 1.50
Solid Flat Book	1.20 @ 1.30
Crumpled No. 1	1.00 @ 1.15
Solid Book Ledger	2.00 @ 2.25
Ledger Stock	1.70 @ 1.85
No. 1 White News	1.80 @ 1.90
New R. B. Claps	50 @ .60

## Manila—

New Int. Cut	3.15 @ 3.25
New Cut No. 1	2.00 @ 2.25
Extra No. 1, Old	1.60 @ 1.70
Print	.85 @ .95
Container Board	.70 @ .80
Bonus Wrapper	.60 @ .70
Old Krafts, ma-	
chine compressed	1.90 @ 2.05

## News—

Strictly Domestic	.70 @ .80
Strictly Labeled	.55 @ .60
No. 1 Mixed Paper	.40 @ .45
Common Paper	.20 @ .25

## Binders' Board

Solid Wood Pulp	80.00 @ 90.00
Straw Board	35.00 @ 40.00
Filled Pulp Board	60.00 @ 65.00

## Old Papers

Shavings—	
No. 1 Hard White	3.00 @ 3.25
No. 1 Soft Shaw	2.25 @ 2.50
No. 1 Mixed	.80 @ .85
No. 2 Mixed	.80 @ .85
White Envel Cut-	
tings	3.00 @ 3.25
Ledgers and Writ-	
ings	1.50 @ 1.75
Solid Books	1.25 @ 1.50
No. 1 Books, light	.90 @ 1.00
Blanks	1.65 @ 1.75
Ex No. 1 Manila	1.90 @ 2.00
Manila Envelope	
Cuttings	2.00 @ 2.25
No. 1 Manilas	1.10 @ 1.20
Folders News (over	
issue)	.85 @ .90
Old Newspaper	.70 @ .75
Mixed Papers	.65 @ .70
Straw Clippings	.65 @ .70
Binders Clippings	.65 @ .70
Kraft	1.75 @ 2.00
New Kraft Cuts	2.00 @ 2.25
Roofing Stock, f. o. b.	
Chicago, Net	
Cash—	
No. 1	27.00 @ —
No. 2	25.00 @ —
No. 3	23.00 @ —
No. 4	23.00 @ —

## PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper	
Bonds	.10 @ .60
Ledgers	.15 @ .40
Writings—	
Superfine	.15 @ .20
Extra fine	.12 @ .22
Fine	.20 @ .30
Fine, No. 2	.20 @ .25
Fine, No. 3	.15 @ .20
Book, M. F.	.06 @ .09
Book, S. S. & C.	.08 @ .15
Book, Coated	.08 @ .15
Coated Lithograph	.10 @ .15
Label	.08 @ .15
News	.05 @ .07
No. 1 Jute Manila	.18 @ .18 1/2
Manila Sul., No. 1	.09 1/2 @ .10
Manila No. 2	.08 1/2 @ .09
No. 2 Kraft	.07 @ .07
No. 1 Kraft	.02 @ .08
Common Bogus	.02 @ .03 1/2
Straw Board	35.00 @ 45.00
News Board	40.00 @ 45.00
Chip Board	30.00 @ 35.00
Wood Pulp Board	90.00 @ 100.00
(Carload Lots)	
Binder Boards—	
Per ton	\$65.00 @ 75.00
Carload lots	\$60.00 @ 65.00
Targed Felts—	
Regular	75.00 @ 80.00
Slaters	80.00 @ 85.00

Best Tarred, 1-ply	(per roll) 2.00 @ 2.10
Best Tarred, 2-ply	(per roll) 1.50 @ 1.60
Best Tarred, 3 ply	2.00 @ 2.10

## Bagging

F. o. b. Phila.	
Gunny No. 1—	
Foreign	2.25 @ 2.50
Domestic	1.00 @ 1.25
Manila Rope	4.00 @ 4.50
Sisal Rope	.75 @ .80
Mixed Rope	.75 @ .80
Scrap Burlaps	1.00 @ 1.25
Wool Tares, heavy	2.50 @ 2.75
Mixed Strings	.75 @ .80
No. 1, New L. Bur-	
lap	.75 @ .80

# Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING NOVEMBER 26, 1921

### SUMMARY

News Print 6,344 rolls, 1,364 reels, 319 bls.  
 Printing Paper . . . . . 91 cs.  
 Tissue Paper . . . . . 5 cs  
 Kraft Paper . . . . . 471 bls  
 Paper Hangings . . . . . 2 pgs.  
 Wall Paper . . . . . 457 bls, 1,092 rolls, 14 cs.  
 Crepe Paper . . . . . 146 cs.  
 Surface Coated Paper . . . . . 22 cs.  
 Photo Paper . . . . . 4 cs  
 Cigarette Paper . . . . . 1,258 cs.  
 Filter Paper . . . . . 45 bls, 47 cs.  
 Packing Paper . . . . . 2,498 rolls  
 Miscellaneous Paper 1,371 rolls, 778 bls.  
 . . . . . 82 cs, 2,700 reels

### CIGARETTE PAPER.

P. J. Schweitzer, Patria, Marcellus, 50 cs  
 Coenca, Morrison & Co., Chicago, Havre, 7 cs  
 American Tobacco Co., by same, 62 cs  
 American Tobacco Co., Texas, Bordeaux, 1,027 cs.  
 American Tobacco Co., Leopoldina, Havre, 112 cs.

### PHOTO PAPER

Keystone View Co., Panhandle State, London, 4 cs.

### NEWS PRINT

C. L. Robinson, Moravia Bridge, Gothenburg, 319 bls.  
 C. L. Robinson, by same, 809 rolls.  
 Seggerman Bros., Drothingholm, Gothenburg, 170 rolls.  
 Brown Bros. & Co., by same, 3,170 rolls.  
 Sun Printing & Publishing Co., by same, 1,195 rolls.  
 F. C. Strvte, Bergensfjord, Kristiania, 3 reels.  
 Nat'l Bank of Commerce, by same, 524 reels.  
 Haring Paper Corp., by same, 494 reels.  
 Arne Motzan, by same, 35 reels.  
 Agros Corp., Ottar Jarl, Kotka, 254 reels.  
 Parsons & Whittemore, Noordam, Rotterdam, 54 reels.

### PRINTING PAPER.

L. A. Consmiller, Noordam, Rotterdam, 70 cases.  
 P. Puttmann, Samland, Antwerp, 11 cases.  
 B. F. Drakenfeld & Co., Cedric, Liverpool, 10 cases.

### TISSUE PAPER

Meadows, Wye & Co., Cedric, Liverpool, 2 cs  
 R. Hoe & Co., Mesaba, London, 3 cs

### KRAFT PAPER.

J. P. Heffernan Paper Co., Moravia Bridge, Gothenburg, 471 bls.

### PAPER HANGINGS

G. W. Sheldon & Co., Mongolia, Hamburg, 2 pgs.

### WALL PAPER.

R. L. Jang, Mongolia, Hamburg, 472 bls.  
 The Prager Co., Samland, Antwerp, 157 rolls  
 The Prager Co., Lapland, Antwerp, 920 rolls  
 A. C. Doolman, Jr., by same, 14 cs

### CREPE PAPER

Globe Shipping Co., Noordam, Rotterdam, 146 cs

### SURFACE COATED PAPER

L. A. Consmiller, Noordam Rotterdam, 22 cs

### FILTER PAPER

E. Fougeta & Co., Texas, Bordeaux, 45 cs  
 George Lueders & Co., by same, 5 bls  
 F. Manheimer, by same, 10 cs  
 Lunham & Moore, America, Bremen, 2 cs

### PACKING PAPER

Republie Bag & Paper Co., East Cape, Hamburg, 2,498 rolls

### PAPER

Brown Bros. & Co., East Cape, Hamburg, 198 rolls.  
 D. S. Walton & Co., 1,126 rolls  
 D. S. Walton & Co., by same, 15 bls  
 F. Wildermann & Co., Samland, Hamburg, 7 cs.  
 G. W. Sheldon & Co., America, Bremen, 20 cs  
 C. K. Mac Alpine, Drothingholm, Gothenburg, 125 bls  
 C. K. Mac Alpine, by same, 1,027 reels  
 Irving Nat'l Bank, by same, 1,297 reels.  
 Irving Nat'l Bank, by same, 277 bls

D. S. Walton & Co., by same, 88 bls  
 D. S. Walton & Co., by same, 56 reels  
 Wilkinson Bros. & Co., by same, 320 reels  
 Wilkinson Bros. & Co., by same, 88 bls  
 J. P. Heffernan Paper Co., by same, 192 bls  
 Whiting & Patterson, by same, 3 bls  
 H. D. Catty & Co., Chicago, Havre, 55 cs

### RAGS, BAGGING, ETC.

P. Berlowitz, Chicago, Havre, 447 bls. rags  
 D. M. Hicks, Inc., by same, 616 bls rags  
 Mechanics & Metals Nat'l Bank, Stanmore, Leith, 41 bls. paper stock  
 Equitable Trust Co., by same, 340 bls paper stock  
 Crane Co., by same, 24 bls. paper stock.  
 B. D. Kaplan & Co., Cedric, Liverpool, 223 bls. rags  
 American Wool Stock Co., by same, 111 bls rags  
 E. J. Keller Co., Chicago, Havre, 616 bls rags  
 E. J. Keller Co., Stanmore, Dundee, 220 bls. thread and jute cloth  
 E. J. Keller Co., Stanmore, Dundee, 120 bls thread and jute cloth  
 E. J. Keller Co., Stanmore, Leith, 114 bls ropes  
 E. J. Keller Co., Stanmore, Dundee, 41 bls linen threads  
 E. J. Keller Co., Texas, Bordeaux, 235 bls rags  
 E. J. Keller Co., Leopoldina, Rouen, 27 bls rags  
 E. J. Keller Co., East Cape, Hamburg, 63 bls. rags.  
 Castle, Gotthel & Overton, Chicago, Havre, 132 bls. rags, 51 bls. bagging, 183 bls. new cottons.  
 Castle, Gotthel & Overton, Panhandle State, London, 51 bls. waste paper  
 B. D. Kaplan & Co., Mongolia Hamburg, 118 bls. rags  
 Parsons & Whittemore, by same, 199 bls rags  
 P. Berlowitz, Texas, Havre, 703 bls rags.  
 P. Berlowitz, Texas, Bordeaux, 526 bls rags  
 Albion Trading Co., by same, 183 bls. rags.  
 Bernard Judae & Co., Mesaba, London, 61 bls. rags  
 Equitable Trust Co., Samland, Hamburg, 200 bls rags  
 American Wool Pulp Corp., by same, 128 bls rags.  
 P. Berlowitz, Samland, Hamburg, 354 bls rags.  
 D. M. Hicks, Inc., Leopoldina, Havre, 81 bls bagging  
 Salomon Bros. & Co., by same, 19 bls rags  
 International Purchasing Co., by same, 25 bls rags.  
 Central Nat'l Bank & Saving Trust Co., by same, 185 bls rags  
 Chemical National Bank, America, Bremen, 96 bls rags  
 A. Salomon, Inc., East Cape, Hamburg, 224 bls rags.  
 Ladenburg, Thalman & Co., by same, 90 bls rags  
 W. Hughes & Co., by same, 45 bls rags  
 J. Berlowitz, by same, 684 bls rags  
 Dallas Waste Mills, Olympe, Genoa, 35 bls cotton waste  
 Salomon Bros. & Co., by same, 158 bls. cotton waste  
 R. F. Downing & Co., Noordam, Rotterdam, 38 bls rags

### OLD ROPL

International Purchasing Co., Noordam, Rotterdam, 69 coils  
 International Purchasing Co., Moravia Bridge, Gothenburg, 91 coils  
 M. V. Meera Co., Chicago, Havre, 289 coils  
 D. M. Hicks, Inc., Stanmore, Leith, 91 coils  
 Mechanics & Metals National Bank, by same, 114 coils  
 F. J. Kelyer Co., New Amsterdam, Rotterdam, 91 coils  
 Brown, Bros. & Co., Cedric, Liverpool, 75 coils.  
 Schultz & Ruckgaber, by same, 72 coils  
 Brown Bros. & Co., Boston City, Bristol, 103 coils  
 American Express Co., Mesaba, London, 121 coils  
 Mechanics & Metals National Bank, America, Bremen, 149 coils  
 Castle, Gotthel & Overton, Mesaba, London, 143 coils.  
 Ladenburg, Thalman & Co., East Cape, Hamburg, 118 coils

### WOOD PULP

C. L. Robinson, Moravia Bridge, Holmsund, 15,000 bls. wood pulp, 3,018 tons  
 P. Enders & Co., Drothingholm, Gothenburg, 1,140 bls. sulphate.

F. M. Sergeant Co., Bergensfjord, Kristiania, 640 bls. chemical pulp, 55 tons.  
 F. Butterworth & Co., by same, 160 bls sulphite, 20 tons  
 J. Andersen & Co., by same, 900 bls. sulphite, 152 tons  
 Nat'l Bank of Commerce, Ottar Jarl, Kotka, 250 bls. wood pulp, 50 tons.  
 H. Hollesen, America, Bremen, 2,590 bls. wood pulp  
 M. Gottesman Co., East Cape, Hamburg, 1,357 bls. wood pulp, 141 tons  
 Ladenburg, Thalman & Co., by same, 1,676 bls. wood pulp, 335 tons

### CHINA CLAY.

Lake Knowles, Boston City, Bristol, 200 tons.  
 Moore & Munger, by same, 128 tons  
 Hammill & Gillespie, by same, 100 tons.  
 Paper Makers Chemical Co., by same, 100 tons.  
 Ilvce & Roberts, by same, 100 bags.

### CASEIN.

J. M. Duché & Sons, Bonheur, Buenos Aires, 834 bags  
 Atterbury Bros., by same, 834 bags  
 Equitable Trust Co., Chicago, Havre, 200 bags.  
 At Philadelphia  
 Paper House of Pennsylvania, Drothingholm, Gothenburg, 25 reels print paper  
 Mechanics & Metals National Bank, Mesaba, London, 143 coils rope.

## BOSTON IMPORTS

WEEK ENDING NOVEMBER 26, 1921

T. F. Welch, Lapland, Antwerp, 2 cs. wall paper  
 Brown Bros. & Co., Mesaba, London, 51 coils rope  
 Geo. Wheelwright Paper Co., by same, 241 bls. waste paper  
 Equitable Trust Co., by same, 31 bls. waste paper  
 American Express Co., by same, 167 bls. waste paper  
 Baring Bros. & Co., by same, 55 bls. waste paper  
 Castle, Gotthel & Overton, Soerdyk, Rotterdam, 116 bls. wood pulp.

## BALTIMORE IMPORTS

WEEK ENDING NOVEMBER 26, 1921.

Castle, Gotthel & Overton, East Cape, Hamburg, 600 bls. wood pulp, 110 tons  
 National Bank of Commerce, by same, 500 bls. wood pulp, 52 tons  
 C. L. Robinson, by same, 4,000 bls. wood pulp, 508 tons  
 R. F. Downing & Co., by same, 619 rolls wall paper  
 Leshner Paperstock Co., by same, 744 bls. rags.  
 Salomon Bros. & Co., by same, 215 bls. rags.

## CHARLESTON IMPORTS

WEEK ENDING NOVEMBER 26, 1921.

Castle, Gotthel & Overton, Oklahoma City, Hamburg, 130 bls. bagging.

## GALVESTON IMPORTS

WEEK ENDING NOVEMBER 26, 1921.

Hudson Trading Co., City of Alton, 190 rolls news print

## NEW ORLEANS IMPORTS

WEEK ENDING NOVEMBER 26, 1921.

Hudson Trading Co., Cliffwood, 198 rolls news print.  
 Wood Pulp Trading Co., Ltd., Cliffwood, Hamburg, 1,800 bls. wood pulp.

# CONSOLIDATED PAPER BAG CO.

**General Offices:**  
125 Merrimac St., Boston, Mass.

**Factory:**  
Somerville, Mass.



*Manufacturers of*

## PAPER BAGS and SACKS of EVERY DESCRIPTION

Samples submitted on request

Inquiries Solicited

## BLEACHED SULPHITE

FOR

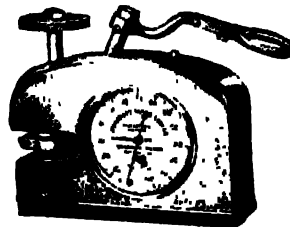
Writing, Book and Tissue Papers

### PARSONS Pulp and Lumber Co.

EDWIN J. DEWEY, Manager Pulp Sales

Office, 1807-1810 Finance Bldg.,  
PHILADELPHIA, PA.

Mills at  
PARSONS, WEST VA.



**The Ashcroft  
Paper Tester**

Actual necessities for all those who make, sell or purchase paper in any form. The thousands in daily use testify to their efficiency.

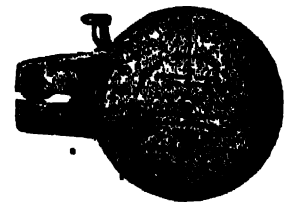
**THE ASHCROFT MFG. CO.**

119 West 40th Street  
New York

29 North Jefferson Street  
Chicago, Ill.

19 High Street  
Boston, Mass.

Canadian Sales Agents: The Canadian Fairbanks Morse Co., Montreal and Toronto.



**The Ashcroft  
Thickness Gauge**

## Sales Opportunity

Large New York Paper Merchants and Importers doing a national business have opportunity for two high class salesmen, one having experience selling book and writing papers, the other selling wrappings. Both men must have full knowledge of various qualities, jobbing trade and large consumers. This is exceptional opening for men who can get results. State fully age, experience, salary desired. Replies kept confidential. Address, "President," Box 4650, care Paper Trade Journal

D-1

## Rosin Produced to Specifications

Whether or not your requirements are for an unusually high-grade rosin, you want a uniform grade. Without this you cannot be sure of uniformity in your products except by constantly making costly changes in your process or your formulas.

Yaryan wood rosin is produced under chemical control. It does not vary from one lot to another. Let us know your needs and we can meet your specifications every time.

Naval Stores Division  
**HERCULES POWDER CO.**

Wilmington Delaware

Sales Office—120 Broadway, New York City  
832 N. Michigan Ave., Chicago  
1012 Chronicle Bldg., San Francisco

## HERCULES Naval Stores

Produced Under Chemical Control



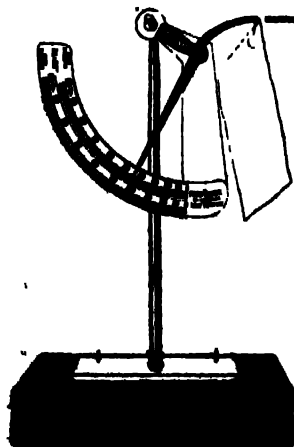
**MADE IN U. S. A.**

### The Baker Universal Paper Scale

Collapsible, for Desk or Pocket. A small piece of paper indicates automatically ream weights per 480 and 500 sheets in sizes 24x36, 20x30, 17x22, 25x38 or any size desired. A scale for every purpose.

**FRED BAKER**

Manufacturer of Precision Paper Scales  
34 West 28th St., New York City  
Established 1912  
Phone: Chelsea 9128-9129



## Miscellaneous Markets

Office of The Paper Trade Journal.

WEDNESDAY, NOVEMBER 30, 1921

**ALUM** Business in the alum market is a little slower than it has been although small quantities of the commodity are moving with more or less regularity. Ammonia alum is quoted at from 365 to 375 cents a pound for the lump, 375 to 400 cents for the ground, and 415 to 525 cents for the powdered.

**BLEACHING POWDER**—The market in bleach is firm and unchanging and while sales are under normal a marked betterment is expected before long. The domestic bleach from the works sells at from 225 to 275 cents a pound, and the imported at from 200 to 225 cents a pound.

**BLANC FINE**—A considerable quantity of blanc fine seems to be moving and the sentiment in the trade is optimistic. It is still selling at about \$40.00 to \$50.00 a ton depending on the grade required, and powdered blanc fine at 350 to 375 cents a pound.

**BRIMSTONE**—The sulphur market is moderately busy and reveals little price fluctuation. Brimstone is quoted at \$18.00 to \$20.00 f o b New York and \$16.00 to \$18.00 a long ton at the mines.

**CASEIN** The supply of casein on the market is small with little being imported at present. The price is the same at from 7.50 to 8.00 cents a pound, although an advance in price is expected when the demand stiffens. This should take place not later than March or April.

**CAUSTIC SODA**—The caustic soda market while doing as well as many of its fellows is not normally active and will thrive again only when such things as freight rates are adjusted so as not to be positively injurious to the business. The contract price is about 300 cents a pound on the basis of 60 per cent.

**ROSIN**—The domestic demand for rosin is slow at present while the foreign demand is comparatively strong. The cheaper grades E and F are scarce so that grade G is employed to fill their places. The price of all three is \$5.60 ex-yard New York.

**CHINA CLAY** The demand for clay outruns the supply at present and domestic producers are some weeks behind in their orders according to authoritative reports. The domestic is quoted at from \$6.00 to \$8.00 a ton net for the unwashed, \$8.00 to \$10.00 for the washed, and \$15.00 to \$20.00 for the imported.

**SALTCAKE**—Saltcake is quiet at present with only a little on the market and a rather slow demand for that. Yellow saltcake sells for \$17.00 and acid white at from \$20.00 to \$22.00.

**STARCH**—Some improvement has been noted lately in the starch market to the increased optimism of the trade. Starch is quoted at \$1.58 per 100 pound bag, \$1.80 per barrel of the same weight, and the imported product is quoted at about 600 cents a pound.

**SATIN WHITE**—The sales in satin white have been nominal for the week at about 210 cents a pound.

**SULPHATE OF ALUMINA**—This chemical is fairly active although its sales are retarded by general conditions which it is hoped will soon be relieved. The commercial grade sells at from 1.60 to 2.10 cents a pound, and the iron free at from 2.60 to 3.00 a pound the low limit standing for bags and the high for bargels in each case.

**SODA ASH**—Some improvement has been registered this week in soda ash. What little has lately been imported has found a ready market. The demand approaches normal and will doubtless improve as soon as transportation rates are lowered to allow a margin of profit. The domestic is quoted at from 215 to 225 cents a pound, per barrel, and the foreign at from 1.85 to 1.95 cents on the basis of 58 per cent.

**TALC**—The talc market is quiet but transacting sufficient business to keep the feeling generally optimistic. Hopes have been expressed for a betterment soon.

## Market Quotations

(Continued from page 59)

Solid Ledger Stock	2.00	@	2.25	New Black Soft	.03	@	.03 1/4
Writing Paper	1.80	@	2.00	New Light Sec			
No. 1 Books, heavy	1.50	@	1.75	onds	.02 1/4	@	.02 1/4
No. 2 Books, light	1.25	@	1.50	Khaki Cuttings	.03	@	.03 1/4
No. 1 New Manila	2.75	@	3.00	Corduroy	.02	@	.02 1/4
No. 1 Old Manila	1.50	@	1.75	New Canvas	.08	@	.08 1/4
Container Manila	1.10	@	1.25	New Black Mixed	3.00	@	3.25
Old Kraft	2.50	@	2.60	Old			
Overissue News	.90	@	1.00	White, No. 1—			
Old Newspaper	.60	@	.70	Repacked	.06	@	.06 1/4
No. 1 Mixed Paper	.50	@	.60	Miscellaneous	.04 1/4	@	.04 1/4
Common Paper	.50	@	.60	White, No. 2—			
Straw Board, Chip	.50	@	.60	Repacked	.03	@	.03 1/4
Binders' Rd Chip	.50	@	.60	Miscellaneous	.02 1/4	@	.02 1/4
Domestic Rags—New				Thirlds and Blues			
Price to Mill, f o b, Phila.				Repacked	1.85	@	2.00
Shut Cuttings—				Miscellaneous	1.55	@	1.75
New White, No. 1	.09	@	.09 1/4	Black stockings	1.75	@	2.25
New White, No. 2	.05 1/4	@	.06	Rooping Stock—			
Silesias, No. 1	.05 1/4	@	.06	No. 1	.90	@	1.00
New unbleached	.08	@	.09	No. 2	.80	@	.90
Washables	.03 1/4	@	.03 1/4	No. 3	.70	@	.80
Fancy	.05	@	.05 1/4	No. 4	.75	@	.85
Cottons—according to grades—				No. 5A	nominal		
Blue Overall	.05	@	.05 1/4	R.	nominal		
New Blue	.02 1/4	@	.02 1/4	C	nominal		

### BOSTON

[FROM OUR REGULAR CORRESPONDENT]

Paper				Wood, Vat Lined	47 50	@	50 00
Bonds	.08 1/2	@		Filled News Board	37 50	@	
Ledgers	.09	@		Solid News Board	40 00	@	
Writings	.08 1/4	@		Manila Chip	52.50	@	
Superfine	.15	@		Pat Coated	70 00	@	75 00
Fine	.12	@					
Books, S. & S. C.	.06 1/4	@					
Books, M. F.	.06	@					
Books coated	.09 1/4	@					
Label	.10	@					
News, sheets	\$4.50	@					
News, rolls	.04	@					
Manila—							
No. 1 Manila	\$7.00	@					
No. 1 Fibre	8 00	@					
No. 1 Lute	8 00	@					
Kraft Wrapping	7 00	@					
Common Bogus	3 00	@					

### Boards

(Per Ton Destination)

Chip	\$35 00	@	\$40 00
News, Vat Lined	37 50	@	--

### TORONTO

[FROM OUR REGULAR CORRESPONDENT]

Paper				Sulphite bleached	90 00	@	95 00
(Mill Prices to Jobbers f. o. b. Mill)				Sulphate	72 50	@	
Bond—							
Sulphite	13	@	--				
Light tinted	14	@	--				
Dark tinted	15 1/4	@	--				
Ledgers	14	@	--				
Writing	11	@	15				
News, f. o. b. Mills—							
Rolls (carloads)	4 00	@	--				
Sheets (2 tons or over)	4 75	@	--				
Book—							
No. 1 M. F. (carloads)	10.00	@	--				
No. 2 M. F. (carloads)	9.00	@	--				
No. 3 M. F. (carloads)	8.50	@	--				
No. 1 S. C. (carloads)	10.50	@	--				
No. 2 S. C. (carloads)	9.50	@	--				
No. 1 Coated and litho	15 00	@	--				
No. 2 Coated and litho	14.00	@	--				
No. 3 Coated and litho	13.25	@	--				
Coated and litho, colored	15.25	@	--				
Wrapping—							
Grey	4 75	@	--				
White Wrap	5.25	@	--				
"B" Manila	5.75	@	--				
No. 1 Manila	7.50	@	--				
Fibre	7.25	@	--				
Kraft, M. F. or M. G.	8.75	@	--				

### Pulp

(F. o. b. Mill)

Ground Wood	\$27.50	@	\$35.00
Sulphite, easy bleach-			
ing	65.00	@	75.00
Sulphite, news grade	60.00	@	65.00

### Old Waste Papers

(In carload lots, f. o. b. Toronto)

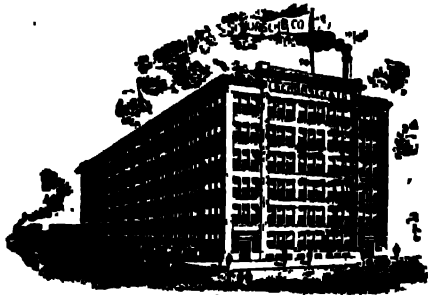
Shavings—			
White Fav. Cut	3 50	@	--
Soft White Book			
Shavings	3 35	@	--
White Blk News	1 90	@	--
Book and Ledger—			
Flat Magazine and Book			
Stock (old)	1 35	@	--
Light and Crumpled Book Stock	1 20	@	--
Ledgers and Writings	1 80	@	--
Solid Ledgers	1 60	@	--
Manila—			
New Manila Cut	1 85	@	--
Printed Manilas	.70	@	--
Kraft	2 25	@	--
News and Scrap—			
Strictly Overissue	1 00	@	--
Folded News	1 00	@	--
No. 1 Mixed Papers	.75	@	--

### Domestic Rags—

Price to mills, f. o. b. Toronto.

Per lb.

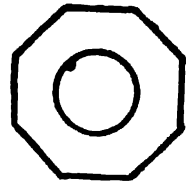
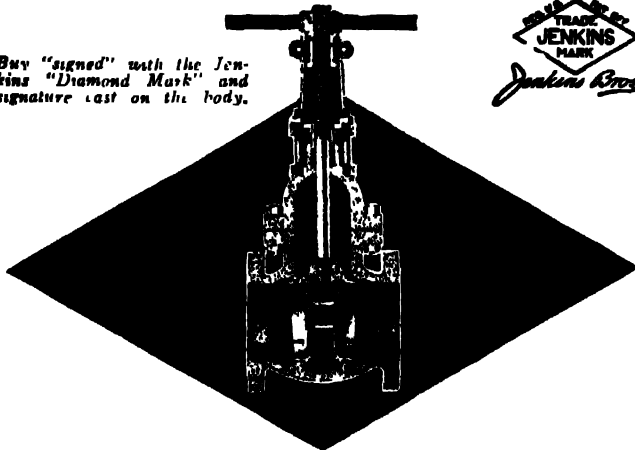
No. 1 White shirt cuttings	.09 1/4	@	.10
No. 2 White shirt cuttings	.05 1/4	@	.05 1/4
Fancy shirt cuttings	.05 1/4	@	.05 1/4
No. 1 Old whites	.04	@	--
Thirlds and blues	.03	@	.03 1/4
Black stockings	2.00	@	--
Rooping stock			
No. 1	1.40	@	--
No. 2	1.30	@	--
Rooping stock			
Manila rags	.04 1/4	@	.05
No. 2	.01 1/4	@	--
Gunny bagging	.03 1/4	@	--

*The Home of Quality*FACTORY  
132<sup>ND</sup> TO 133<sup>RD</sup> ST & BROOK AVE

# PAPER BAGS

**Sacks and Specialties**

ESTABLISHED 1861

**SCHORSCH & CO.***Manufacturers***500 East 133d Street : New York.**This Registered Trade  
Mark Octagonon a Paper  
Bag Vouches for  
Its Good QualityBuy "signed" with the Jen-  
kins "Diamond Mark" and  
signature cast on the body.

## Jenkins Extra Heavy Iron Body Gate Valves



Fig. 204

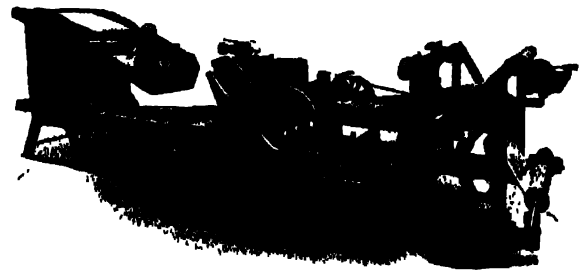
Sectional view Fig 204, outside screw and yoke, rising spindle. Very Heavy Valves for service under heavy pressure and high temperatures, especially adapted to meet the requirements of modern high pressure power plants. Suitable for 250 pounds steam and 400 pounds water working pressures.

**JENKINS BROS.**New York Boston Philadelphia Chicago  
Montreal London HavanaF. L. CLARK, Bridgeport, Conn., Elizabeth,  
N. J., Montreal, Canada.

SINCE 1864

2166-J

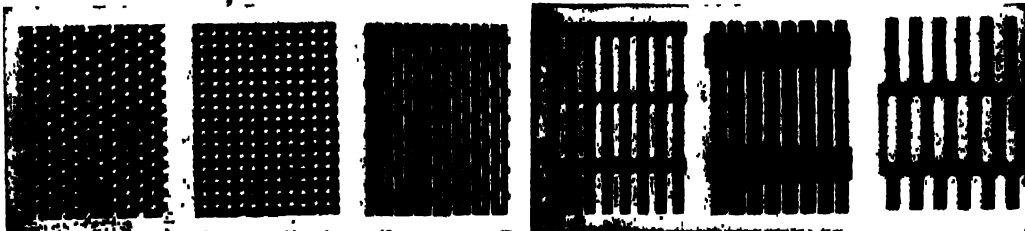
## POTDEVIN PAPER BAG



## ENVELOPE—PAPER WAXING MACHINERY

**POTDEVIN MACHINE CO.**  
1223 38th Street Brooklyn, N. Y.

## PERFORATED METALS

All sizes  
and  
shapes  
of HolesAll kinds  
and  
thicknesses  
of Metal

For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

## The Harrington & King Perforating Company

618 No. Union Ave., Chicago, Ill., U. S. A.

New York Office, 114 Liberty St.

# WANT AND FOR SALE ADVERTISEMENTS

## CLASSIFIED RATES

Minimum rate for advertisements of 25 words or less, first insertion, \$1.00.

**SITUATION WANTED**, 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words accepted.

**HELP AND MISCELLANEOUS WANTS**, and small For Sale Ads, 4 cents a word for each and every insertion. No ads of less than 25 words accepted.

When answering advertisements, please address the Box Number given in ad.

Answers can be forwarded care Paper Trade Journal, and will be promptly forwarded without extra charge. All should be sent to the New York office, 10 East 39th street. And all should be addressed as the advertisement directs in every case and not simply to the paper.

All classified ads for the current issue must be in hand not later than Monday preceding date of publication.

## HELP WANTED

**WANTED**—An expert accountant to handle a complete set of books, one who has knowledge of Government annual and bi-annual reports and is efficient in all detail work. Reply to Post Office Box 84, Menominee, Michigan, stating your ability and your recommendations. D-1

**WANTED**—Man fully capable to take on the charge of the Manufacturing and Selling of a Container Plant capable of producing 50 tons of Container and Corrugated Board per day; all correspondence strictly confidential. Address, Box 4620, care Paper Trade Journal. D-1

**WANTED**—Experienced Beater Engineer who understands Beating of Straw for Light Weight Straw Board. Married man preferred. Mill located in the South and very pleasant location to live in. Please give references and state what salary wanted in first letter. Address, Box 4605, care Paper Trade Journal. D-3.

**WANTED**: First class Beaterman for Beating and Coloring stock for Cylinder Machine making Specialties. Give references and previous employment. Address District of Columbia Paper Mfg Co., Washington, D. C. D-1.

**WANTED**—Two First Class Machine Tenders and Two First Class Back Tenders on Roofing Paper. Mill located in First Class City. Good Schools. Middle aged preferred. Address, Box 4688, care Paper Trade Journal. D-8.

**WANTED**: A No 1 Engineer and Designer with experience on modern High Speed Paper Machines. Only those with the best experience need apply. Address, Box 4623, care Paper Trade Journal. D-15

**PURCHASING AGENT WANTED**: An experienced Purchasing Agent for a Newspaper Manufacturing Company with Modern News Sulphite and Ground Wood Mills. Give full personal particulars, details of experience and previous record. Address, Box 4637, care Paper Trade Journal. D-8.

## EXECUTIVE:

### Large Manufacturing Corporation

requires an executive familiar with organizing, directing, controlling producing, purchasing and selling, splendid opportunity to one who is familiar with the executive as well as manufacturing details, only those capable of filling a position of trust will please apply. All replies will be treated in strict confidence. Address

"M. B.", P. O. Box 882.

CITY HALL STATION, NEW YORK CITY.

## HELP WANTED

**BEATERMAN WANTED** for Two Machine Mill making Grease Proof and Specialty papers. State age and experience. Address, Box 4653, care Paper Trade Journal. D-15.

**WANTED**—Paper Bag and Envelope Salesmen. A Specialty House having recently enlarged its Manufacturing Equipment desires the services of young aggressive salesmen. A broad field and excellent future. Experience and knowledge essential. Write in detail. Address, Box 4638, care Paper Trade Journal. D-1.

**WANTED** Two first-class Cylinder Machine Tenders to run a four cylinder Combination Asbestos Paper and Felt Machine. Mill located in a country town. Steady work, good wages. None but first-class men need apply. Address, Box 4639, care Paper Trade Journal. D-8.

**WANTED**—Paper Finisher. Permanent position is available in a New York Waterhouse of a Paper Jobber for a strong, conscientious, energetic man, between 30 and 40 years of age, who has had experience in handling Book, Coated and Cover Papers. Duties require opening of original cases and refashioning for delivery to printers, helping to load and unload trucks, and making himself generally useful. Salary \$24. State experience, former employers, age, etc. Address, Box 4640, care Paper Trade Journal. D-1.

**WANTED**—Man capable of taking charge of Wallboard pasting department. Must be high grade man, capable of handling help and producing results. Location Middle West. Address, Box 4641, care Paper Trade Journal. D-1.

**WANTED**—Young man of good education and pleasing personality as assistant in our Western Sales Office representing large paper manufacturer making high grade book and coated. Excellent future. State age, education, experience, references, etc. Strictly confidential. Address, Box 4642, care Paper Trade Journal. D-1.

**WANTED**—Machine Tender for Board Machine, two tours. Good wages and steady work, married man preferred. Address, Box 4651, care Paper Trade Journal. D-8.

## SITUATIONS WANTED

**SUPERINTENDENT** open for position. Understands thoroughly the Manufacture of Chip, Container, Combination and the better grades of Box Board. Can organize and handle help, get production and quality. Best of references. Address, Box 4609, care Paper Trade Journal. D-1.

**FOREMAN OR TOUR BOSS** desires position. Have had twenty years' experience making Ground Wood Pulp. Expert Sharpener and good on repairs. Address, Box 4610, care Paper Trade Journal. D-1.

**EXECUTIVE**—Technical Trained Man, Civil and Mechanical Engineering. Fifteen years' experience designing, laying out, etc. Pulp and Paper Mills. Thoroughly familiar with all processes pertaining to Paper Industry. Competent to handle Construction, reconstruction and general Mill Maintenance. Three years as executive and supervising engineer, wishes position of similar nature. Address, Box 4613, care Paper Trade Journal. D-1.

**MASTER MECHANIC** desires position. Expert Construction, Reconstruction, Installing Equipment and Economical Maintenance. Ground Wood and Sulphite from the log to finished product. Fourdrinier machines making Book, Bond, News and Specialties. Cylinder Machines making Board, Bristol and Tissue Specialties, using water, steam and electric power. Address, Box 4425, care Paper Trade Journal. D-22.

**YOUNG MAN**, 30, of wide Business Experience, College educated, understands Paper Industry, wishes to represent Modern Paper Mill in Chicago or East. Best results assured. Address, Box 4649, care Paper Trade Journal. D-8.

## SITUATIONS WANTED

**SUPERINTENDENT OF ABILITY**, desires position in Mill making Box Board, Container Board or Bristol Board. One who can get results, good on maintenance and understands the steam plant thoroughly. Address, Box 4692, care Paper Trade Journal. D-1.

**A LIVE WIRE PAPER SALESMAN** in New York City who can produce a large volume of business with adequate cooperation, desires connection. Drawing account on Commission basis. Correspondence invited. Address, Box 4635, care Paper Trade Journal. D-1.

**SULPHITE SUPERINTENDENT** with 12 years of practical experience and technical training, desires position in Bleached or Unbleached Sulphite Plant where Boiler Room would also come under his supervision. Address, Box 4629, care Paper Trade Journal. D-15.

**SALES EXECUTIVE** desires change. Would manage Jobbing House or represent Reliable Mill in New York or Eastern District. Twelve years' experience. Special knowledge of writings, Book, Coated Paper, Board and Specialties. Address, Box 4630, care Paper Trade Journal. D-8.

**SUPERINTENDENT** desires position. Eighteen years' experience on Tissues, all Grades, such as Toilets, Colored Tissues, Whites, Fruit Wraps, Pattern, Copying, Crepe, and Semi Crepe Toilet, Towels, Napkins, Soap Wrappers. High Grade Man on Kraft Specialties, Wax Tissues and Specialties. Thoroughly understands the Converting of Wax Tissues and Plain Colored Crepe Paper. A No 1 on Colors, good mechanic and organizer. References furnished. Address, Box 4619, care Paper Trade Journal. D-1.

**SUPERINTENDENT**—Mechanical Engineer with wide experience in Paper, Bag, Sacks, Envelope, Printing and Toilet Paper Manufacturing. Taking full charge of Factory, building new Plants, designing and Building of Machines, desires a position with a Progressive Company. Address, Box 4635, care Paper Trade Journal. D-8.

**MASTER MECHANIC**: Desires position. Long experience always gives satisfaction. My experience covers Steam, Electricity, General Repairs, Designing and Building. Address, Box 4632, care Paper Trade Journal. D-15.

**SITUATION WANTED**—Salesman, experienced, desires suitable connections with a Paper Jobbing Concern or an Envelope Manufacturer in New York City. Acquainted with the Printing and Stationery Trade. Address, Box 4622, care Paper Trade Journal. D-8.

**SUPERINTENDENT WISHES** to make a change from his present position. Have had fifteen years' experience on all grades of Boxboards, Containers, Tests, etc. Familiar with repairs, maintenance, and know how to handle men. Middle aged, married, and can give best of references. Address, Box 4435, care Paper Trade Journal. D-8.

**PAPER MILL EXECUTIVES**: Practical Papermaker seeks connection with Mill interested in increased production with maintained quality. Address Box 4643, care Paper Trade Journal. D-15.

**ATTENTION PAPER BAG MANUFACTURERS**: New York Selling Agency affiliated with a Jobbing House, presently distributing over carload of square and flat bags weekly, seeks to represent out of town manufacturer, capable of meeting New York Prices and seeking additional outlet for his product. Commission basis. References exchanged. Address, Box 4644, care Paper Trade Journal. D-1.

**SITUATIONS WANTED**

**BACK TENDER**, desires to make change. Four years' experience on all grades of Box Board. Married man, steady and reliable. Best of references furnished. Address, Box 4645, care Paper Trade Journal D-1.

**WANTED**—Position by Lead Burner, contract or by the hour. 20 years' experience on all kinds of Lead Burning. Address, Box 4646, care Paper Trade Journal. D-15.

**SALESMAN**—Experienced Coarse Paper and Bag Man, age 31 who has been selling Ohio Jobbers direct Mill shipments for past 3 years, wishes to make connection with Mill that has a future to offer young man. Address, Box 4647, care Paper Trade Journal. D-8.

**SUPERINTENDENT**—Young man with good habits, sixteen years' experience on Combination Board, etc. Good mechanical and business ability. Familiar with building, rebuilding operation and maintenance of all departments, wishes to make a change as Manager or General Superintendent with a progressive company. State particulars Confidential. Address, Box 4648, care Paper Trade Journal. D-8.

**WANTED**—First Class Machine Tender wishes position in up-to-date Mill where there is a chance to advance. Well up on all kinds of board. Steady, reliable and capable. Address, Box 4652, care Paper Trade Journal. D-1.

**POSITION WANTED** by married man as assistant Superintendent in some good Board Mill on the Pacific Coast. Now employed as Night Superintendent in Two Machine Mill and Ground Wood Mill. Twenty years' experience on Test Container, Chip, Box Boards and Solid Pulp Boards. Can furnish best of references. Address, Box 4658, care Paper Trade Journal.

**YOUNG MAN**, High School Graduate, one year of Accounting and Business Law, desires connection with Chicago Paper House. Four years' experience in all branches of Manufacturing. Any position with real future considered. Very best references. Address, Box 4611, care Paper Trade Journal.

**YOUNG MAN** desires position as Third Hand on Big Machine making Book Paper. Can handle Paper and has done some Bookbinding. Best of references. Address, Box 4631, care Paper Trade Journal.

**For Sale**

**BEATERS**—6 N & W 48x48 rolls, 2 Emerson 48x48, 22" tubs  
**CUTTERS**—One 52" Sheridan, new model, 38" Guillotine  
**CALENDARS**—One Board rolls 16x50", one 7 roll open side 84"  
**EXHAUSTER**—One Sturtevant.  
**FANS**—3 Hunberry, 2 Perkins.  
**JORDANS**—On N & W Monarch, One Emerson large size, one Horne, one N & W Pony, with extra plug  
**PULLEYS**—All sizes  
**PUMPS**—Two 6" Emerson, one 4" Centrifugal, Law Mch. Co.'s make. 1—Type 4 Gould 5" triplex water pump  
**PRESS ROLLS**—One pair brand new, one R C 18x40, one Gun Metal 18x81, one 16x75", and others.  
**RAG CUTTERS**—Four No. 2 Daniels, one Perkins.  
**REELS**—One 2 bowl 36", one 2 bowl 58".  
**ROTARIES**—Two 7"x22".  
**SLITTERS**—One 86" P & J, one 40" Kidder, one 104" R & C.  
**WINDERS**—One 86" P & J, with slitters and rewinding shaft, for immediate shipment.  
**SAVE-ALL**—One North.  
**WET MACHINES**—5 N & W, with cutoffs, moulds 30x52", three extra cylinder moulds for these machines.

**MILLS MACHINE COMPANY**  
 Lawrence, Mass. U. S. A.

**MISCELLANEOUS**

**LARGE SALES AGENCY** located in the Southeast would like to hear from Manufacturers of Toilet Paper, High Grade Copes, Tissues and also Medium Grades. Address, Box 4634, care Paper Trade Journal. D-15.

**WANTED**—A 7 or 9 Roll Super Calendar from 34 inches to 40 inches in width. George La Monte & Son, 61 Broadway, New York. tf

**WANTED:**

A SECOND-HAND CREPE MACHINE ADAPTED FOR COLORED CREPES. STATE WIDTH OF MACHINE, DIAMETER OF DRIER, MANUFACTURER'S NAME AND PRICE. ADDRESS BOX 4580, CARE PAPER TRADE JOURNAL. D-1

**FOR SALE**

**FOR SALE**—14 Calendar Rolls, 58" face, 8" to 14" diameter. 2 No 1 Clavin Engines. 1 small Jordan Engine. 1 6" Horizontal Water Pump. 2 Air Fans. Complete triple-deck frames for 44 Dryers. Will arrange terms to suit. Chesapeake Paper Board Co., Baltimore, Maryland. tf.

**FOR SALE**—One Moore & White Lining Machine, 42" trim, 4 Dryers, 2 Felt Drums. In good condition. Can be seen in operation. Moderate prices. Address, Box 4617, care Paper Trade Journal. D-8

The Want Columns  
 of the  
 Paper Trade Journal  
 are  
 Result Getters  
 —  
 TRY THEM

**FOR SALE**

**FOR SALE**—Cylinder Press Felts, 13 x 86 and Cylinder Wets 64 x 80. Also six Naught Drier Felts 80 to 86" wide, 32 to 86 yards long. Several Stock Pumps. H. F. Watson Company, Erie, Pa. D-33

**FOR SALE**—24" x 42" McIntosh Seymour Rolling Mill Type Horizontal Steam Engine 125 R P M 635 H P. 2-78" x 20" Horizontal Return Tubular Boilers 150 lbs. 30 KW D.C Generator 125 V. Feed Water Heater, Steam Separator, Boiler Feed Pump, Rope Sheaves and Tension Carriages for 1", 1½", and 2" Ropes, Pulleys, Shafting, Hangers, and Bearings up to 8" diameter. All of the above is as good as new and will be sold cheap, especially the Rope Sheaves which will sell for 20% the cost of new. We will be willing to grant very liberal terms to responsible parties. Walters Milling Company, 30th and Master Streets, Philadelphia, Pa. D-1.

**COAL**—Moshannon and "E Seam" bituminous coals, low sulphur, low ash. Lowest freight rate east and north. Prices and freight rates will be furnished on request. Halden-Kelley Coal Company, 209 Market St., Clearfield, Pa. tf.

**FOR SALE**—Roofing and Saturating Machines. 72"x36" wide. Chilled steel rolls. Also Painter Mixing Machine, Grinders, etc. Address Box 4310, care Paper Trade Journal. tf

**FOR SALE**

100 Inch Duplex Paper Cutter with special Attachments. One Ton Sprague Electric Hoist. Also 20 H.P. Motor with Starting Regulator. A Seybold 20th Century 74 inch Flat Cutter. All in excellent condition and as a whole an exceptional equipment for Cutting and Finishing Paper. Reasonable price to the right party. Address, Box 4627, care Paper Trade Journal. tf.

**REBUILT PAPER MILL MACHINERY IN STOCK AND GUARANTEED NOT WHERE IS AND AS IS**

**Fourdrinier Paper Machine:** One 112", one 96", one 72"  
**Fourdrinier Parts:** Pusey & Jones, 137", 118", 112", 104"  
**Press Parts for Paper Machines:** Pusey & Jones Bell Crank housing two sets 18" x 114", three sets 18" x 110", two sets 18" x 96", Black & Clawson swing arm housings with rolls  
**Dryers:** Four 48" x 111", sixteen 48" x 106", ten 48" x 68", one 84" x 67", eleven 42" x 66", Thirteen 36" x 95"  
**Marshall Drives:** 6 Black & Clawson self-contained stand with friction clutch cone pulley and 7" mortise gears. Mortise gears and pinions for Pusey & Jones Marshall drives 5" to 8" face  
**Chilled Calendars:** One 66" face five roll Dillon Doctors. For Machine Calendars 60" to 120" face  
**Slitters and Winders:** One 18" Warren, one 82" Pusey & Jones two drum, one 108", 36" rollers. One 116" Moore & White Four Drum  
**Reels:** Pusey & Jones two drum upright 48" to 114"  
**Beaters:** Six 72" x 42" Noble & Wood, two 66" x 42" Noble & Wood, equipped with three cylinder washers, one Dilts 62" x 30" iron tub, one Jones 62" x 52" seven Horne 36" x 36".  
**Jordans:** One Wagg Majestic, three No 2 Dillon Improved, one Large Horne, five Monarch, two Pope Brushing engines  
**Screens:** Three 12 plate open side Packer.  
**Stuff Pumps:** Deane triplex 8" x 12", Gould triplex 8" x 10", Sandusky triplex 4" x 6".  
**Revolving Sheet Cutters:** One 104" Horne, one 84" Clark, one 50" Hamblet diagonal, two 48" Finlay, four 61" Hamblet, four 61" Finlay.  
**Wet Machines:** Four 72" Bagley & Sewall Hydraulic.

**Frank H. Davis Company,** 175 North Ave., CAMBRIDGE, MASS.

**GIBBS-BROWER BULLETIN****PAPER MILLS FOR SALE****IN THE EAST**

Manila, Fibre, Colored Textile, Kraft and Colored Specialties Mill. Two Fourdrinier Machines trimming 68 inches. Twenty-five tons, 24 hours. Also Pulp Mill, Grinders, digesters and wet machines. Ground wood 12 tons, sulphite Fibre 7 tons, 24 hours. 600 horse water power, purest water, also steam and electricity. Mill on two railroads with private sidings.

Crepe towel and Toilet Mill. Fourdrinier Machine trimming 68 inches. 7 tons 24 hours. 300 horse water power. On main line railroad. Excellent location.

Chip, News, Manila lined and Container board specialties mill. Two six cylinder machines trimming 86 and 94 inches. 100 tons 24 hours. Water and Steam.

We offer the finest developed water power left in New England, 400 horse water power. Fifteen acres of land, eighteen buildings, storehouses and dwellings. On main line Boston and Maine railroad. All there but the paper mill. Will sell at sacrifice for quick turnover.

We offer used Fourdrinier paper machine trimming 72 inches. Complete and in good condition. Immediate delivery and reasonable price.

**IN THE WEST**

Container, liner and combination Box Board Mill. Two 5 cylinder machines. Trimming 70 and 84 inches. 45 tons 24 hours, 650 horse water power, steam and electricity. On two large railroads with private sidings.

Straw Kraft, Butchers' Fibre, sulphite wrapper and car Linings Mill. Fourdrinier machine trimming 61 inches. 12 tons 24 hours. Steam. Railroad Sidings.

**GIBBS-BROWER COMPANY,**

*Paper and Pulp Mill Brokers,*

**261 Broadway New York City**

Telephone—Barclay 8820.

**OUR MOTTO: "Service First."**

**Chicago Office: 181 Quincy St., Chicago, Ill.**

**PULP STONES**

*of absolutely the finest quality*

**LOMBARD & CO.**

*Importers and Dealers*

**236-238 A Street : BOSTON, MASS.**

*Branch at Montreal, Canada*

**SUPERIOR CHEMICAL CO.**

**JOLIET, ILLINOIS**

*Manufacturers*

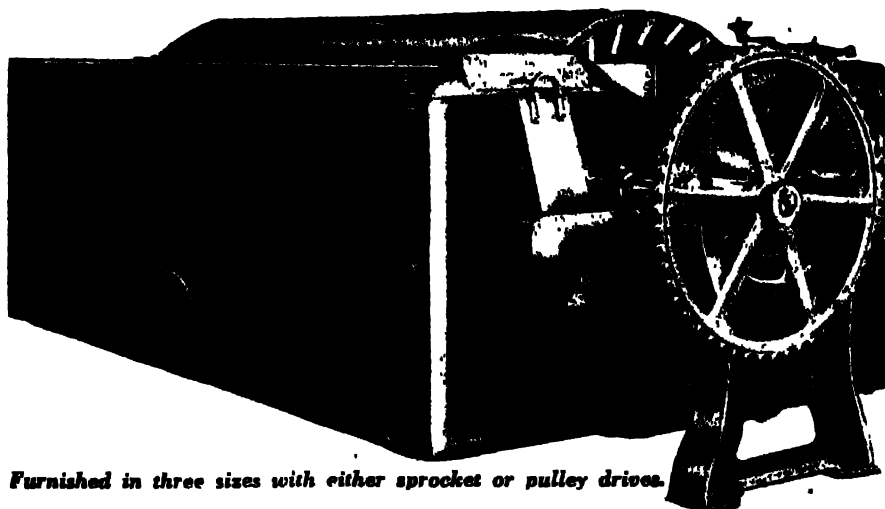
**PAPER MAKERS' and FILTER**

**ALUM**

**THE WOOD'S MACHINE**

Distinctive performance and intensified confidence in this machine as a Pulp Thickener, Save-All, Washer or Water Filter insure success in its building.

On the market but a few years, our installations number more than **Eighty-five**. Twenty-nine sold the past year.



*Furnished in three sizes with either sprocket or pulley drive.*

**MADE BY**

**GLENS FALLS MACHINE WORKS**

**GLENS FALLS, N. Y.**

*Try our Split Cams for your Flat Screens*

**SIMPLICITY**, in cylinder and vat construction, operation automatic, and without couch roll, doctor or any complicated moving parts.

**DEPENDABILITY**, in its simple revolving cylinder only, with nothing to get out of order, requiring little attention, and having a patented principle of maintaining wires always clean, insuring continuous performance.

**PRODUCTIVENESS**, enormous, through clean wires, large screening surface, patented unique method of discharge and freedom from shut-downs.

**DURABILITY**, by rigid construction, ample bearing surfaces, nothing to injure wires and highest grade materials.

All these enhance its value and involve upon you the duty of investigation.

**Architects and Engineers**

**CAREY, JAMES L.**, Paper Mill Architect and Engineer, 308 North Laramie avenue, Chicago, Ill.

**CHAPMAN, C. A., Inc.**, Paper Mill Architects and Engineers, 28 Jackson Boulevard E., Chicago, Ill.

**SNOW, S. M.**, Mill Architect, Engineer, Paper and Pulp Mills. Steam and Water Power Plants. 55 Kilby street, Boston, Mass.

**Rags, Paper Stock, Etc.**

**BERLOWITZ, PAUL**, 132 Nassau street, New York. Importer of Rags, Bagging, New Cuttings.

**FLYNN, MICHAEL**, 54 Columbia street, Brooklyn, N. Y.

**GOLDSTEIN, R. & SON**, 1142 Scott street, Baltimore, Md. Cotton Rags and Paper Stock.

**HILLS, GEO. F.**, 236 South Street Branch House, 276 W. 25th street, N. Y.

**LIVERPOOL MARINE STORE CO.**, Liverpool, England. L.M.S. Wood Tag, Manila, Rope and Star Brands (Registered).

**SIMMONS, JOHN, SONS**, Paper and Paper Stock, 25 and 30 South Marshall street, Philadelphia, Pa.

**MISCELLANEOUS****Bale Ties**

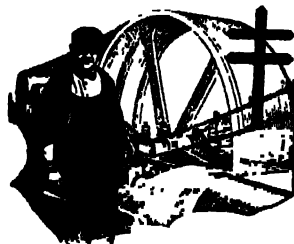
**WILSON, H. P. & H. F.**, Manufacturers of Steel Wire Bale Ties, for baling all compressible material 544 West 22nd street, New York City.

**Boards**

**MILLER PAPER CO., FRANK P.**, high grade specialties Boards East Downton, Pa.

**Special Machinery**

**SWIFT, GEORGE W., JR.**, Designer and Manufacturer of Special Machinery for Manufacturing and Printing Paper Goods, Bordentown, N. J.



## Keep the Man Going Who Keeps Industry Going

What oil is to the machine, health is to the worker. The efficiency of both is essential to good business.

An average of 2½ years of productivity would be added to the life of every individual who reaches the age of 17, if there were no fatal cases of tuberculosis. The economic loss to America due to tuberculosis is more than \$500,000,000 annually.

It is your responsibility to combat this human and economic waste.

Do it with Christmas Seals.

Christmas Seal  Christmas Mail

The National, State and Local Tuberculosis Associations of the United States

## Blotting Paper of the Best Quality

MANUFACTURED BY

## THE EATON-DIKEMAN COMPANY

LEE, MASS.

Manufacturers of Blotting, Matrix, Filter and all other grades of absorbent papers.

Registered brands Magnet and Columbian, also Lenox and Arlington.

SEND FOR SAMPLES AND PRICES

## CLAFLIN CONTINUOUS BEATERS

produce a fine, smooth, strong, uniform stock

### The 250 Claflin Continuous Beaters

Now in use prove that they are the Ideal Equipment for

Rope Manila	Kraft Paper
Wall Board	Sulphite Screenings
Leather Board	Waste from Pulp Stones

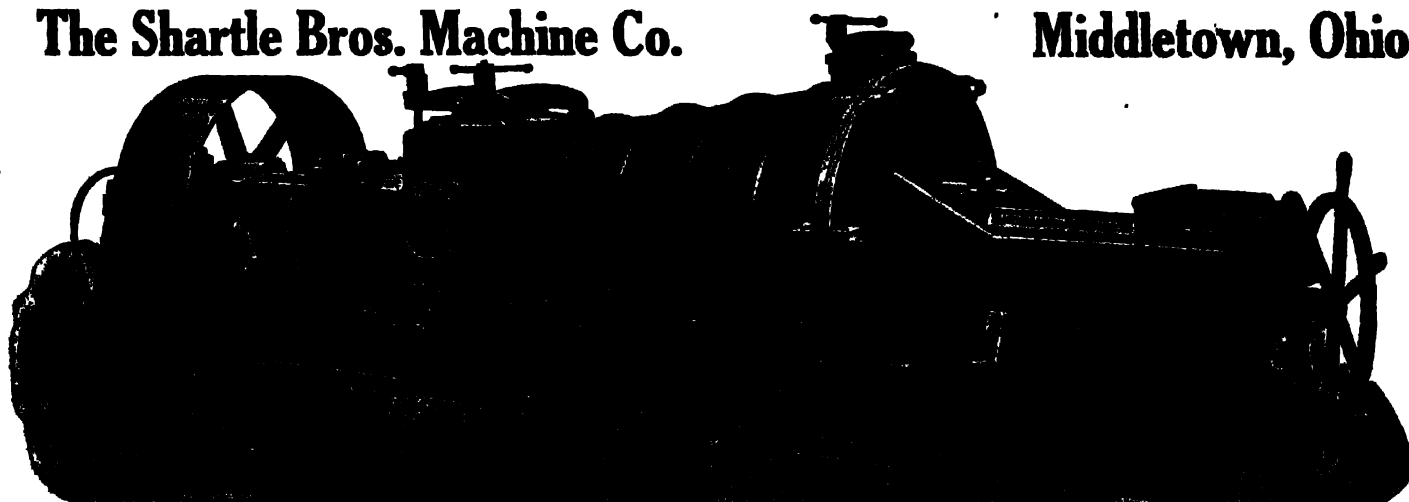
### THE CLAFLIN ENGINEERING CO.

Lancaster, Ohio

The Canadian Fairbanks-Morse Co., Montreal, Quebec  
Agents for Dominion of Canada

## The Shartle Bros. Machine Co.

## Middletown, Ohio



**FREDERICK L. SMITH**

21 EAST 40TH STREET, NEW YORK  
**PULP AND PAPER MILL  
 ENGINEER**

**V. D. SIMONS**

**INDUSTRIAL ENGINEER**

Pulp and Paper Mills, Hydro-Electric and Steam Power Plants  
 Electrification Paper Mill Properties  
 39 S. La Salle St., Chicago

**HARDY S. FERGUSON CONSULTING ENGINEER**

Member AM. SOC. C. E., Member AM. SOC. M. E.,  
 Member Eng. Inst. Can.

200 FIFTH AVENUE, NEW YORK CITY  
 Paper, Pulp and Fibre Mills, Including Building and Complete  
 Mechanical Equipment, Water Power Development, Dams,  
 Storage Reservoirs and Other Hydraulic Structures,  
 Examinations, Reports, Estimates of Cost, Designs,  
 Specifications, Valuations

**GEORGE F. HARDY**

M. AM. SOC. C. E., M. AM. SOC. M. E., M. ENG. INST. CAN.  
*Mill Architect and Consulting Engineer*  
 Langdon Building, 309 Broadway, New York  
 SPECIALTY: Paper, Pulp and Fibre Mills, Water Power Develop-  
 ments, Steam Power Plants, Plans and Specifications  
 Evaluations, Reports, Consultation  
 Cable Address: "Hardistock," A B C 5th Edition, Bedford, McNeill.  
 Western Union—Bentley's.

**J.H. WALLACE  
 & COMPANY.**  
 TEMPLE COURT BUILDING  
 NEW YORK CITY, U.S.A.  
 CABLES: TRIPLEX, N.Y.

**PULP  
 AND  
 POWER  
 PLANTS**

**ENGINEERS  
 & CHEMISTS**  
 INDUSTRIAL DESIGN  
 PLANT IMPROVEMENT  
 LABORATORY TESTS

**JOHN F. CARRIGAN ENGINEERING**

Consulting and Sales Engineering  
**POWER IS OUR SPECIALTY**

Estimates, Reports, Detail Plans of Power Plants.  
 CARRIGAN STOKERS for any BOILER, 50 to 300 H. P.  
 AUTOMATIC HOT WELLS specially designed for PAPER MILLS.  
 504 CUNARD BLDG., CHICAGO, ILL.

**Timber Lands Bought and Sold.  
 Timber and Pulp Wood Estimates.**

**R. R. BRADLEY,**  
*Consulting Forester*

58 Telegraph Building, Hospital St., Montreal, P. Q.

**GEORGE F. DREW**

**MILL ARCHITECT AND ENGINEER  
 BRUNSWICK, MAINE**

For the past 22 years Chief Engineer for the Pulpmat Paper Co.  
**SPECIALTY: Pulp, Paper and Saw Mills**  
 Cotton, woolen, worsted, cordage, silk mills, and their equipment.  
 Appraisals, adjustments.

**H. B. PRATHER**

**CONSULTING ENGINEER**

**CONSULTATIONS      REPORTS      ESTIMATES**  
 Complete Designs Pulp and Paper Mills—Steam and Electric  
 Power Plants—Equipments  
 600 ROCKEFELLER BLDG., CLEVELAND, OHIO

**WILLIAM T. FIELD**

*Consulting Engineer*

206 Broadway,  
 New York, N. Y.

Flower Bldg.,  
 Watertown, N. Y.

**DESIGNS**

**ESTIMATES**

**REPORTS**

**VITALE & ROTHERY**

**FOREST ENGINEERS**

527 Fifth Avenue

New York, N. Y.

**TIMBERLAND SERVICE**

Estimate.      Maps      Graphic Methods

**JAMES W. SEWALL, Forest Engineer**

Old Town, Me.    Sanford, Fla.    Munsey Bldg., Washington, D. C.  
*Largest Cruising House in America*

**THOMAS L. TOMLINES & SON**

**CONSULTING ENGINEERS**

ASSOC M. AM. SOC. C. E.;    317-319 CITY BANK BLDG.,  
 M. AM. SOC. M. E.    SYRACUSE, N. Y.  
 Paper, Pulp and Fibre Mills, Hy- Steam Power Plants, Plans and  
 draulic Developments, Hydro- Specifications, Efficiency  
 Electric Plants    Engineering  
**CONSULTATION AND REPORTS**

**HERBERT S. KIMBALL**

M. Am. Soc. C. E.

**CONSULTING ENGINEER**

79 Milk Street, Boston 9, Mass.

Investigations and reports relating to the pulp and paper industry. Special atten-  
 tion to the design of chemical equipment in Sulphite and Soda mills. Paper  
 machine room construction and ventilation; plans for buildings and equipment.

**SANFORD RILEY STOKER CO.**  
 WORCESTER, MASS

**RILEY  
 STOKERS**

BOSTON

NEW YORK  
 CINCINNATI

PHILADELPHIA  
 CHICAGO



PITTSBURGH  
 ST. PAUL

**MURPHY IRON WORKS**  
 DETROIT, MICH.

**MURPHY  
 FURNACES**

BUFFALO

CLEVELAND

CHICAGO

"A type to meet every stoker need"

THE  
**MANAGEMENT ENGINEERING AND DEVELOPMENT CO.**  
7TH FLOOR CITY NATIONAL BANK BLDG.,  
DAYTON, OHIO.

DESIGN, CONSTRUCTION AND OPERATION  
OF  
PULP, PAPER AND FIBRE MILLS.  
WATERPOWER DEVELOPMENT  
STEAM POWER PLANTS.

PLANS AND SPECIFICATIONS  
EVALUATIONS AND REPORTS  
CONSULTATIONS

**STEBBINS ENGINEERING & MFG. CO.**

Mill Architects

Watertown, N. Y.

**Sulphite and Soda Mill  
Equipment**

Specialty: ACID SYSTEMS, DIGESTER  
AND ACID PROOF LININGS  
GUARANTEED.

Service department always ready for emergencies.  
Only high class experienced men employed.

**IMPORTED PAPER AND PULP**

**NEWSPRINT**

IN ROLLS OR SHEETS

From Stock in New York, or Direct From Mill

**E. C. MELBY**

21 East 40th St. New York City

Representing  
Drammen Paper Mills, Drammen, Norway  
G. A. Svensen Trading Co., Christiania, Norway

**"ENGOLINE"**

Solid Lubricants

"CYLEND" A. X. and "BEATALL"

Economy Efficiency Cleanliness

**HAROLD NEWLIN HILL**

50 N. 13th St.

Philadelphia, Pa.

**"WATERBURY"**  
**Felts-Jackets**  
ORISKANY, N. Y.

OUR TIGHT FITTING, DIAMOND "W" JACKETS  
WILL NOT LICK UP AT ANY SPEED  
1869 MADE ONLY BY 1921  
GUARANTEED BY  
H. WATERBURY AND SONS COMPANY, ORISKANY, N. Y.

**E. BUTTERWORTH & CO., Inc.**

CHARLES H. WOOD, Pres.

LEWIS JENNINGS, Treas.

Boston Office, 136 Federal St.

New York Office, 1123 Broadway

**PAPER MAKERS' SUPPLIES**

Sole agents for "S" Brand and Snow Brand Bleached Sulphite Pulp

**THOS L. DICKINSON**  
26 Gold St.  
NEW YORK

Special Shaped Carbon, Black Diamond POINTS FOR TURNING Paper, Cotton,  
Chilled Iron and Hardened Steel Calendar Rolls, Hard Rubber, Fibre, etc.  
Manufactured by  
Successor to John Dickinson Established 1796  
Agents for Great Britain, C. W. HURTON, GRIFFITHS & CO.,  
Ludgate Square, London

WILLIAM B. DILLON

**DILLON & BARNES**

Paper Mill Products and Supplies

52 VANDERBILT AVENUE, NEW YORK

Telephone, 7353 Murray Hill

**SLITTERS and SPECIAL MACHINES**

for use in paper industry

**C. BENNINGHOFEN & SONS**

Hamilton, Ohio

Send us your requirements regardless of what they may be.

**Penn Paper and Stock Company**

PACKERS OF ALL GRADES OF  
**WASTE PAPER**

240 N. FRONT STREET

PHILADELPHIA

**R. L. STEVENS, Jr., Woolworth Building, New York**

EXCLUSIVE EASTERN REPRESENTATIVE OF THE RHINELANDER PAPER COMPANY

Glindeps, Glindeproof, Manifold Parchment, Dry Finish Butchers', Machine Glazed Sulphites, 10 to 40 lb. bask, Special papers for Creeping and Waxing, together with other Specialties; general line of Wrappings.

Established 1895  
**DANIEL M. HICKS**  
 (INCORPORATED)

## PAPER MILL SUPPLIES

200 Fifth Ave., New York

## The Union Sulphur Company

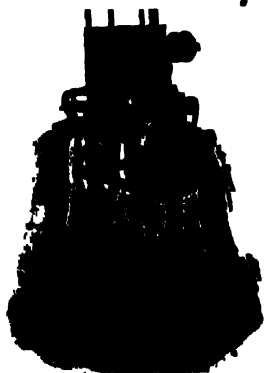
Producers of the Highest Grade  
 Brimstone on the Market . . .

ABSOLUTELY FREE FROM ARSENIC OR SELENIUM

**The Largest Sulphur Mine in the World**

CALCASIEU PARISH, LOUISIANA

Main Offices: Frasch Building, 33 Rector Street, New York



## GRISSINGER Patented AUTOMATIC TUBE MACHINE

Wire Stitched Tube  
 TOILET PAPER  
 MACHINERY

GRISSINGER MACHINE WORKS  
 PHILADELPHIA, PA.

Patented { June 24, 1913  
 August 10, 1915

## "DRAPER" FELTS

*For Any Grade of Paper or Pulp*

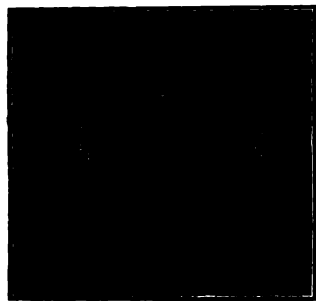
**ARE GUARANTEED**

*To Give Entire Satisfaction*

MANUFACTURED BY

**DRAPER BROS. CO., CANTON, MASS.**

## NEW ENGLAND TANK & TOWER CO.



**WOOD TANKS  
 FOR ALL  
 PURPOSES**

Everett Station, Boston, Mass.  
 New York Office, 30 Church St.

ESTABLISHED 1851

IRA L. BEEBE

CYRUS E. JONES

## IRA L. BEEBE & CO.

132 Nassau St., New York

IMPORTERS AND DEALERS IN



**WOOD PULP**

## HEINE LARGE UNIT BOILERS

Water Tube Boilers  
 Horizontal and Vertical Cross Drum  
 Vertical Heat Boilers



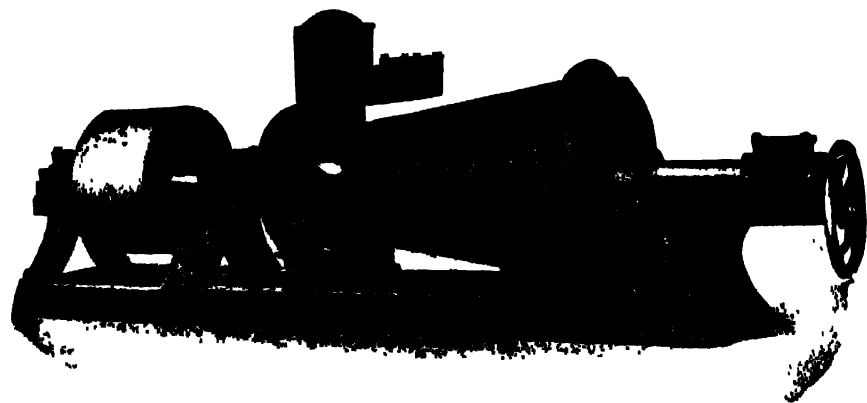
Refer to our literature to ASME Boiler Code

**Heine Boiler Company**

**WINDERS  
 AND  
 REWINDERS**  
 SAMUEL M. LANGSTON COMPANY  
 CAMDEN, N. J.

**CAMACHINE**  
 SLITTERS AND WINDERS  
 CAMERON MACHINE CO. BROOKLYN, N. Y.

# THE DILLON JORDAN



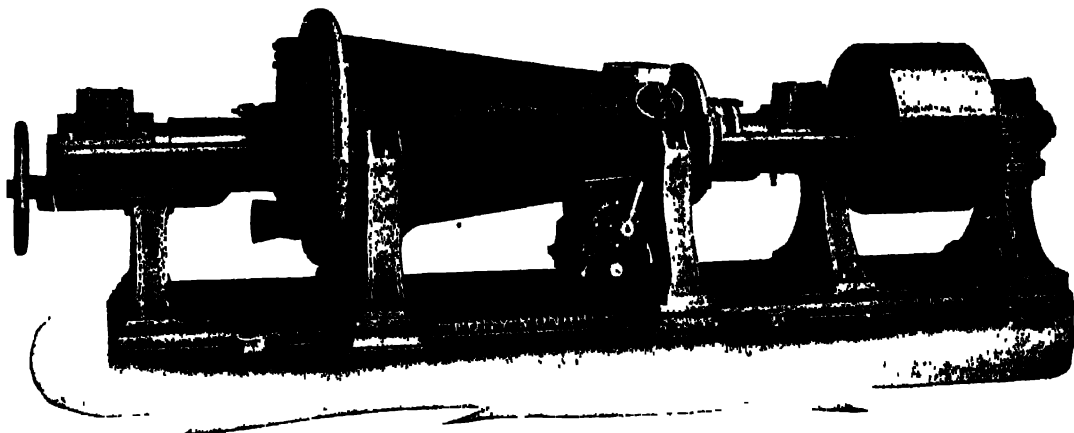
Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Outside stand fitted with gauge to keep the plug central with the shell.

*For full particulars apply to*

**DILLON MACHINE CO., Inc.**  
Builders of Paper Mill Machinery  
Lawrence, Mass.

**WE MAKE  
BEATERS AND  
JORDANS OF  
QUALITY**

**SIX SIZES OF  
JORDANS,  
BEATERS,  
FROM ¾ LBS.  
TO 3000 LBS.**

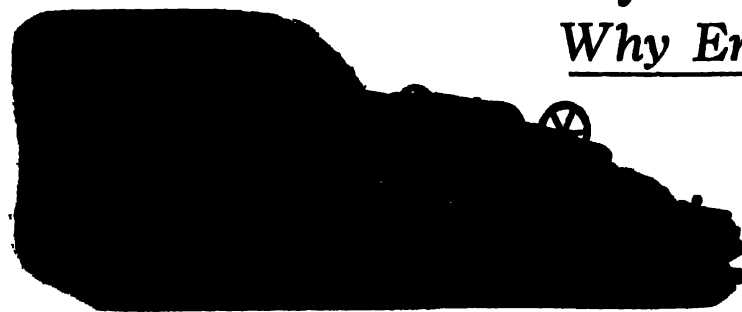


**The Noble & Wood Machine Co., Hoosick Falls, N. Y.**

## Fourdrinier and Cylinder Paper Machines

Why Enlarge Your Beater Room?

Why Add More Power?



All infringements on present patents and patents to be issued will be vigorously prosecuted

This beater reduces stock to fibre of equal or better quality in half to one quarter of the time and with a saving of power which is remarkable. Do not take our word. Investigate. Manufactured by

**MILLS MACHINE COMPANY** . . . **Lawrence, Mass., U. S. A.**  
Builders of all kinds of paper mill machinery

# CLASSIFIED INDEX TO ADVERTISEMENTS

ADDING MACHINE ROLLS.		Page	CHEMICALS, COLORS, ETC.		Page	FILTERING SYSTEMS.		Page
Paper Manufacturers Co.	55		Arnold, Hoffman & Co., Inc.	—		Norwood Engineering Co.	5	
<b>AGALITE.</b>			Du Pont de Nemours & Co.	13		<b>FLOOR COVERINGS.</b>		
Union Talc Co.	55		Heller & Mertz Co.	13		L. Sonneborn & Sons.	—	
U. S. Talc Co.	55		Kuttruff, Pickhardt & Co.	Front Cover		<b>FLOOR HARDENER (Concrete).</b>		
<b>ALUM.</b>			Newport Chemical Works, Inc.	7		L. Sonneborn & Sons.	—	
The Kalbfleisch Corp.	7		Sandoz Chemical Works, Inc.	76		<b>FOURDRINIER WIRES.</b>		
Pennsylvania Salt Mfg. Co.	76		C. K. Williams & Co.	76		Appleton Wire Works	76	
Superior Chemical Co.	66		<b>CLAY.</b>			Buchanan Bolt & Wire Co.	72	
Winkler Bros., Inc.	57		Atterbury Bros.	55		Cable Excelsior Wire Mfg. Co.	76	
<b>ARCHITECTS AND ENGINEERS.</b>			John W. Higman Co.	39		Cheney, Bigelow Wire Works	74	
John F. Carrigan	68		Paper Makers Chemical Co.	49		Eastwood Wire Mfg. Co.	76	
George F. Drew	68		Star Clay Company	76		Thomas E. Gleason	57	
Hardy S. Ferguson	68		<b>COAL AND ASHES HANDLING MACHINERY.</b>			Lindsay Wire Works	—	
William T. Field	68		Jeffrey Mfg. Co.	—		Joe. O'Neill Wire Works	57	
George F. Hardy	68		Empire Coal Mining Co.	—		The W. S. Tyler Company	57	
Herbert S. Kimball	68		<b>COAL MINING.</b>			<b>FURNACES (Automatic).</b>		
Management Engineering and Development Co.	69		N. P. Bowsher Co.	76		Murphy Iron Works	68	
H. B. Prather	68		<b>COMPRESSORS (Air).</b>			<b>GAUGES (Pressure, Indicating and Recording).</b>		
V. D. Simon	68		The Nash Engineering Co.	45		Bristol Co., The	—	
F. L. Smith	68		<b>CORDAGE.</b>			The F. B. Co., Inc.	41	
Stebbins Engineering Co.	69		Columbian Rope Co.	—		Manning Gauge Co., Inc.	—	
Thomas L. Tomlins & Son	68		<b>CUTTERS.</b>			<b>GUMMING AND GLUING MACHINERY.</b>		
Vitale & Rethery	68		Smith & Winchester Mfg. Co.	8		Potdevin Machine Co.	63	
Joseph H. Wallace & Co.	68		<b>CUTTING MACHINERY.</b>			<b>HEATERS.</b>		
<b>ASBESTINE PULP.</b>			M. D. Knowlton Co.	55		Gordon Co., Inc., Robert	9	
International Pulp Co.	Front Cover		<b>DIE CUTTERS.</b>			<b>KNIVES, ETC.</b>		
<b>ASHES HANDLING MACHINERY.</b>			Hogson & Pettis Mfg. Co.	2		Holton & Son, J. W.	9	
Jeffrey Mfg. Co.	—		Independent Die Co., Inc.	—		Dowd Knife Works	—	
<b>BALL BEARINGS.</b>			<b>DIGESTERS.</b>			<b>LUBRICANTS.</b>		
S. K. F. Industries, Inc.	75		American Welding Co.	47		Harold Newlin Mill	69	
<b>BEATING ENGINES.</b>			Morse Chain Co.	55		Vacuum Oil Co.	—	
Beloit Iron Works	25		<b>DRYER EXHAUSTS.</b>			<b>MICROMETERS.</b>		
Clafin Engineering Co.	67		The Nash Engineering Co.	45		E. J. Cady & Co.	31	
Dayton Beater & Heat Co.	—		<b>DRYING SYSTEMS.</b>			Foreign Paper Mills, Inc.	3	
Dillon Machine Co.	71		Open Coil Heater & Purifier Co.	—		<b>MILL COGS.</b>		
Ditts Machine Works, Inc.	49		W. F. Pickles	—		N. P. Bowsher & Co.	76	
Downingtown Mfg. Co.	74		Ross Engineering Co.	—		<b>MOTORS.</b>		
Emerson Mfg. Co.	49		<b>DYES, ANILINE.</b>			B. F. Perkins & Sons, Inc.	11	
Miller Machine Co.	71		Calco Chemical Co.	—		<b>OILS AND GREASE.</b>		
Noble & Word Machine Co.	71		Heller & Mertz	13		Vacuum Oil Co.	—	
Valley Iron Works Co.	43		National Aniline & Chemical Co.	—		<b>PACKING.</b>		
<b>BELT LACING, STEEL.</b>			Newport Chemical Works, Inc.	—		Jenkins Bros.	63	
Flexible Steel Lacing Co.	—		The White Tai Aniline Corporation	4		<b>PAINTS &amp; VARNISHES.</b>		
<b>BELTING.</b>			<b>DYE STUFFS.</b>			Du Pont de Nemours Co., F. I.	—	
Cincinnati Rubber Mfg. Co.	—		E. I. Dupont de Nemours & Co.	—		<b>PAPER BAG MACHINERY.</b>		
Goudy Tire & Rubber Co.	—		<b>ELECTRIC HOISTS.</b>			Potdevin Machine Co.	63	
R. D. Skinner & Co., Inc.	41		Shepard Electric Crane & Hoist Co.	—		Smith & Winchester Mfg. Co.	8	
<b>BOILERS.</b>			<b>ENVELOPE MACHINES.</b>			<b>PAPER BAG MANUFACTURERS.</b>		
Heine Boiler Co.	70		Potdevin Machine Co.	63		Consolidated Paper Bag Co.	61	
<b>BUCKETS (Elevator).</b>			F. L. Smith Machine Co.	—		Lawrence Bag Co.	23	
Hendrick Mfg. Co.	10		<b>FELTS AND JACKETS.</b>			Schersch & Co.	63	
<b>CALENDER ROLLS.</b>			Albany Felt Co.	—		<b>PAPER BOX BOARDS.</b>		
Farrell Foundry & Machine Co.	53		Appleton Woolen Mills	8		C. L. Bouteaux Co.	13	
Loddell Car Wheel Co.	54		F. B. Burt & Co.	Front Cover		<b>PAPER CUTTERS.</b>		
Norwood Engineering Co.	5		Draper Bros. Co.	70		Hamblet Machine Co.	53	
Perkins & Son, Inc., B. F.	11		Fitchberg Duck Mills	11		McLauthlin & Co., G. I.	—	
Textile Finishing Machinery Co.	—		E. C. Huyck & Son	—		<b>PAPER DEALERS.</b>		
<b>CARBON TOOLS.</b>			Knox Woolen Co.	3		M. M. Elish & Co.	37	
Thomas L. Dickinson	69		Lockport Felt Co.	49		R. F. Hammond	Front Cover	
<b>CASEIN.</b>			Oni Felt & Blanket Co.	47		Midwest Paper Co.	55	
Casem Mfg. Co.	3		Shuler, Birmingham Co.	—				
			Waterbury Felt Co.	4				
			Waterbury & Sons Co., H.	69				

*Paper Stock*

## NOW IS THE TIME TO BUY OUR RAW MATERIALS

Out of our forty different grades of paper stock you are assured a steady, reliable source for procuring raw materials in practically every branch of paper making. Having specialized for 35 years in this one field you can depend upon a clean, well-packed, uniform product throughout; fulfillment of delivery promises; and because of our output of 300 tons daily, big tonnage at all times. Write us your wants.

Mendelson Bros. Paper Stock Co.,

General Office: 310 So. Michigan Ave., Chicago, Ill.  
Long Distance Phone: Harrison 2840 and 1847

# Buchanan & Bolt Wire Company

ESTABLISHED 1878 AT HOLYOKE, MASS.

Makers of Highest Grade Fourdrinier Wires, Dandy Rolls, Cylinder Covers, Brass Wire Cloth of all Meshes for Paper, Pulp and Coating Mills—Quality Guaranteed

We make a specialty of Fine Wires for Magazine and Book Papers

## CLASSIFIED INDEX TO ADVERTISEMENTS

PAPER EXPORTERS.		PAPER WAXING MACHINERY.		STEAM SPECIALTIES.	
A. M. Capen's Sons Inc	76	Potdevin Machine Co	63	Crane Co	55
Hudson Trading Co	2	PERFORATING MACHINES.	10	Open Coil Heater & Lurher Co	—
Parsons Trading Co	Front Cover	Dietz Machine Works	10	STITCHING MACHINERY.	—
PAPER MANUFACTURERS.		PERFORATING METAL.		Saranac Machine Co	—
American Coating Mill	5	Harrington & King Perf rating Co	11	SULPHITE BLEACHED AND UNBLEACHED	—
Bayless Mfg Co	4	Herlick Mfg Co	10	T. Andersen & Co	4 and 27
Becker Paper Corporation	5	Charles Mundt & Sons	10	The Borregard Co Inc	—
Brown Company	5	Mainhattan Perforated Metal Co	49	Brown Company	—
Collins Mfg Co	1	PLUGS (Wood).	—	Butterworth & Co Inc	—
Diamond State Fiber Co	Front Cover	O. L. Bartlett	—	Canadian Robert D. H. Co	—
Eaton Dikeman Co	67	PULP PROCESS	8	Craig Becker Co Inc	—
Fort Howard Paper Co	5	Castle (Cotton) & Co Inc	8	Eastern Manufacturing Co	—
Franklin Paper Co	—	PULP STONES	—	Metall Sales Co The	—
Hammermill Paper Co	—	International Pulp Stone Co	Front Cover	Parsons Pulp & Lumber Co	—
Howard Paper Co	—	Warland & Co	66	Prior & Hulse Ltd	Front Cover
Massachusetts Pulp & Paper Co	—	PUMPS	—	Pulp & Paper Trading Co	—
Mountain Mill Paper Co	6	Friedrich Iron & Steel Co	2	SULPHUR.	—
New York & Maryland Pulp & Paper Co	11	Haydn Pump & Blower Co	—	Texas Gulf Sulphur Co	—
Nuclear Paper Company	7	PUMPS (Vacuum)	45	Union Sulphur Co	76
Poland Paper Co	—	The Nash Engineering Co Inc	—	TANKS	—
Sherman Paper Co	—	PRESSURE BULKERS	11	W. L. Caldwell Co	—
Stratford Paper Co	51	B. I. Perkins & Son	11	New England Lank & Lower Co	—
Wausau Sulphate Plant Co	—	RAG CUTTERS.	—	Stein Lumber Co	—
PAPER AND PULP MACHINERY.		B. I. Perkins & Son Inc	11	TIMBER ESTIMATES	—
Bagley & Swell Co	—	Rawl & Sons Co	—	R. R. Bradley	—
Baker Mfg Co	—	REAM CUTTERS	—	James W. Sewall	—
Belmont Iron Works	—	Co. L. McCluskey Co	—	TRANSMISSION MACHINERY.	—
Bird Machine Co	—	RECORDING INSTRUMENTS.	—	H. W. Caldwell & Sons Co	—
Black Clawson Co	—	First Company	—	Reeves Pulley Co	—
Clark Alton Co	—	First Co Inc	41	TURBINES	—
Frank H. Davis	—	ROBIN	—	S. Morgan Smith Co	—
Downsview Mfg Co	—	Hercules Powder Co	—	TURPENTINE.	—
Glens Falls Machine Works	—	ROBIN SIZE.	—	Hercules Powder Co	—
Improved Machinery Co	—	Arab Mfg Co	—	TWINES	—
Mills Machine Co	—	Lehigh Chemical Co	—	America Manufacturing Co	—
Quincy Hill Iron & Brass Co	—	ROTARY BLEACHING BOILERS	—	VALVES	—
Shurtle Bros Machine Co	—	Bucks Boiler Works Co	—	Crane Co	—
Smith & Winchester Mfg Co	—	RUBBER ROLLS.	—	Tenck Bros	—
Valley Iron Works	—	American Wringer Co	—	VAPOR ABSORPTION SYSTEMS	—
Waterville Iron Works	—	SAVE ALL.	—	F. O. Ross Engineering Co	—
PAPER MILL AGENTS.		Bird Machine Co	—	VENTILATING FANS.	—
Dillon & Barnes	—	SCALES (Paper).	—	B. I. Perkins & Son Inc	—
Hill Company Bert N. C.	—	First Baker	—	Ross Engineering Co	—
McClary Dina T.	—	T. T. Cole & Co	—	VEGETABLE PARCHMENT PAPERS.	—
Melby F. C.	—	Foreign Paper Mills Inc	—	Kahn & Co Vegetable Parchment Co	—
R. I. Stevens, Jr.	—	SCREENS	—	WAXED PAPERS	—
PAPER AND PULP MILL BROKERS.		Bull Machine Co	—	Draper Paper Mfg Co	—
Gibbs Brown Co	—	Central Mfg Co	—	WOOD FLOOR	—
PAPER STOCK.		Wm. A. Harley & Sons Co	—	Union Wood Floor Co	—
Atterbury Bros	—	Union Screen Plate Co	—	WOOD PULP IMPORTERS.	—
Butterworth & Co Inc	—	SKYLIGHTS	—	American Wood Pulp Corp	—
Castle (Cotton) & Overton	—	F. Van Nostrand & Co	—	J. Andersen & Co	—
Cumbersome Bros	—	SLASHERS	—	Ira I. Beebe & Co	—
Hicks Daniel M.	—	R. H. & Pringle Co	—	The Borregard Co Inc	—
Francis Hughes Co	—	SLITTERS AND REWINDERS	—	M. C. Cottenham & Co	—
Mendelsohn Bros Paper Stock Co	—	C. R. Cunningham & Sons	—	Hammont, R. F.	—
Penn Paper & Stock Co	—	Cutter Machine Works	—	J. J. Keller Co	—
Salomon Bros & Co	—	Dietz Machine Works	—	Lagered Printing Co	—
Travis Smith Co	—	Samuel M. Langston Co	—	Metall Sales Co The	—
PAPER TESTERS.		SPICING TISSUE	—	A. J. Lagel & Co Inc	—
Ashcroft Mfg Co	—	Sergeant Co, E. M.	—	J. J. Patton & Co Inc	—
Foreign Paper Mills Inc	—		—	Perkins Co down Co	—
B. I. Perkins & Son Inc	—		—	Scandinavian American Trading Co	—
PAPER TUBE MACHINERY.			—		—
Dietz Machine Works	—		—		—
Grisinger Machine Works	—		—		—

STRATFORD PAPER CO.

160 Cornelison Ave.  
Jersey City, N. J.

High Grade Fourdrinier Tissues in Stock for Immediate Delivery

Pittsburg, Mass.,  
U. S. A.

UNION SCREEN PLATE COMPANY

Lennoxville, P. Q.  
CanadaUNION BRONZE SCREEN PLATES ROLLED BRASS  
(Best phosphorized Cast Metal) (Union Quality)

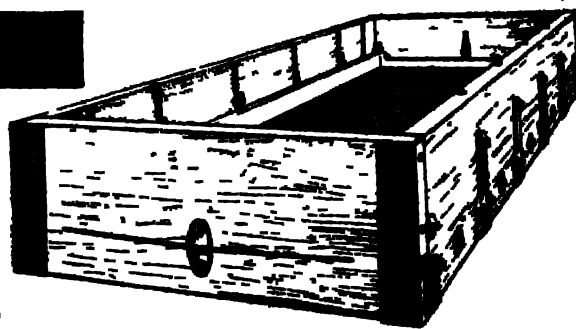
Old Plates ENOILED and RECT to accurate gauge.

UNION BRONZE SCREWS for Screen Plates

UNION BRONZE SUCTION BOX PLATES

Immediate Delivery of the Largest Orders. Satisfaction Guaranteed

THE UNION-WITHAM SCREEN PLATE VAT AND FASTENERS

THE UNION-WITHAM  
THE BEST  
THE MOST RECOMMENDED IN THE INDUSTRYTHE UNION-WITHAM  
THE BEST  
THE MOST RECOMMENDED IN THE INDUSTRY

# BAKER MANUFACTURING CORPORATION

Formerly Baker & Shevlin Co.

Manufacturers of

A general line of paper and pulp making machinery including:

Automatic Magazine Grinders (owners of all U. S. patents)

Bronze and White Metal Valves for Sulphite Mills

Bronze and White Metal Pipe and Fittings for Sulphite Mills

Centrifugal Screens—Horizontal and Vertical

Centrifugal Pumps

C. Rache Wiig Barking Drum

Cylinder Moulds

Decker Machines or Pulp Thickeners

Feeney Automatic Stock Regulator

Kneaders

Monarch Diaphragm Screen

Paper Making Machines—Cylinder and Fourdrinier

Paper Machine Screens—Horizontal Rotary

Pulp Refiners

Ramsey Patent Grinder Valves

Sliver Screens

Wet Machines

Winder Shafts

Worm Washers

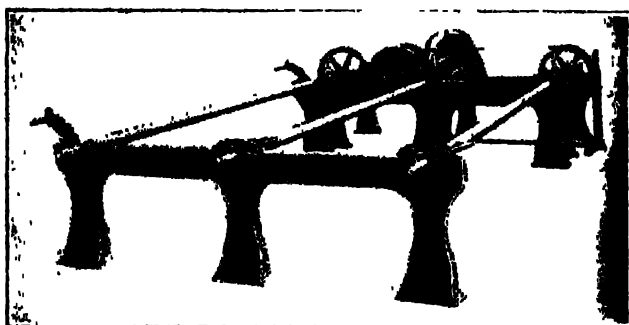
Worm Knotters

Baker Manufacturing Corporation

Saratoga Springs, N. Y.

## DOWNINGTOWN MANUFACTURING CO.

EAST DOWNINGTOWN, PA., U. S. A.



3 Shaft Compensating Winder

*We build all kinds of  
Paper Mill Equipment*

WRITE US FOR PRICES

ESTABLISHED 1842

## FOURDRINIER WIRES

DANDY ROLLS

CYLINDER

MOLDS

**CHENEY BIGELOW WIRE WORKS**  
SPRINGFIELD, MASS.

MANUFACTURERS

Paper Mill Wire Cloth, Bank  
and Office Railings and Grill Work













